

**The nexus between growth of Micro, Small and Medium Enterprises (MSMEs)
and youth employment in Eritrea**

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Abstract

Economic growth and development are strategic for the overall development of a country. Micro, small and medium enterprises play a surmountable role in economic growth and development. Among other contributions, they provide jobs in an economy. Several developing countries, such as Eritrea, face limited private sector growth, yet also have the need to invest in the creation of enough and decent job for youths. Hence, this study intended to identify the prominent factors that deter the growth of micro, small and medium enterprises as well as the connection between their growth and youth employment, using a case study of Eritrea. The study used econometric research method. Through stratified sampling and a questionnaire, it collected data from 76 micro, small and medium enterprises. In the analysis, it used ordinal and binary logistic regressions, chi-square and correlation tests. The study concludes that there is no sufficient evidence that the growth of micro, small and medium enterprises influences youth employment. It finds that the growth of micro, small and medium enterprises is deterred by obstructive access to raw materials, obstructive banking regulations and obstructive general business regulations and policies. The study recommends improvement of the macro-economic conditions for pro-business sector growth, establishment of a policy on development of micro, small and medium enterprises, and a gradual liberalization of the private economy. Further, it proposes an impact investing based growth model of micro, small and medium enterprises to increase certainty on employment creation contribution. It suggests that an investment in micro, small and medium enterprises for youth employment creation that does not address the identified deterrents faces a significant impact risk.

Keywords:

Impact investing, MSMEs growth, entrepreneurship, youth employment, economic development, private sector, investment, business regulation and policy, risk

Classification:

Development finance, Entrepreneurial finance, Industrial organization, Business administration and Business economics, Microeconomics, and Labour and Demographics

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GLOSSARY OF TERMS

AUC	African Union Commission
AfDB	African Development Bank
COMESA	Common Market for Eastern and Southern Africa
EBRD	European Bank for Reconstruction and Development
EDIB	Eritrean Development Investment Bank
EEBC	Eritrea – Ethiopia Boundary Commission
EIB	European Investment Bank
EIC	Eritrean Investment Centre
EU	European Union
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GNI	Gross National Income
GoSE	Government of the State of Eritrea
IFC	International Finance Corporation
IGAD	Intergovernmental Authority on Development
ILO	International Labour Organization
MND	Ministry of National Development
MSMEs	Micro Small and Medium Enterprises
NIDP	National Indicative Development Plan
NUEW	National Union of Eritrean Women
NUEYS	National Union of Eritrean Youth and Students
OECD	Organization for Economic and Co-operation Development
OLR	Ordinal Logistic Regression
SEDA	Small Enterprise Development Agency
SDGs	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNHRC	United Nations Human Rights Council
UNIDO	United Nations Industrial Development Organization
UNSC	United Nations Security Council
USAID	United States Agency for International Development

CHAPTER 1: INTRODUCTION

The growth of Micro, Small and Medium Enterprises, hereafter MSMEs, is critical for Africa's sustainable and inclusive economic growth and development. The growth of the MSMEs is considered pivotal in the transformation of developing economies and creation of decent jobs for all through increased private and public investments (African Union Commission [AUC], 2015; United Nations [UN], 2015). Africa's economy has great potential to grow but requires more strategic investments to promote the desired economic growth and development. MSMEs can play a critical role in the transformation of developing economies through expansion of job opportunities in contrast to primarily depending on expanding public wage bill for job creation, which is unsustainable (International Labour Organization [ILO], 2015; Okpara, 2011).

Africa's economies can expand their private sectors to address the increasing need for more jobs for the youthful population (African Development Bank [AfDB], Organization for Economic and Co-operation Development [OECD], & United Nations Development Programme [UNDP], 2017). In 2016, MSMEs contributed about 50% of Africa's GDP and 60% of employment (Muriithi, 2017), which is below the global level projection that about 66% of all jobs are provided by the MSMEs (ILO, 2015; Okpara, 2011). To date, Africa continues to have a high failure rate of MSMEs, yet with a need to provide enough jobs for its growing youth population (Muriithi, 2017).

Eritrea is one of the developing economies in East Africa that has high youth unemployment challenge that hinders inclusive growth and contributes to high youth emigration (AfDB, 2014; Amahazion, 2016; Ministry of Information - Eritrea [MIE], 2016). It is a signatory to the UN's Sustainable Development Goals (SDGs) and AUC's Agenda 2063. The country gained independence in 1991 but between 2000 and July 2018 it was in a state of no war – no peace with Ethiopia due to a border conflict. The economy of Eritrea is predominantly public sector (Nyende & Okumu, 2014) despite an indication that the country has adopted a market economy in which the private sector is expected to play a leading role in economic development (Eritrea Investment Center [EIC], 2001:1).

The MSMEs sector can be nurtured to play a significant role in improving the local economic opportunities. Evidence from other countries shows that strategies and approaches of spurring MSMEs growth are contextual and not universal (European Bank for Reconstruction and Development [EBRD], European Investment Bank [EIB], & World Bank, 2016; World Bank, 2012). Therefore, this research study intended to establish factors that affect the growth of

MSMEs; and the connection between the growth of MSMEs and youth employment using the case of Eritrea. Thus, results of the study can be a basis for evidence-based and context-tailored policy, strategy and program design and implementation in Eritrea.

1.1. Eritrea's economy and development path

Eritrea is a one-party state, in the horn of Africa, on the west coast of the Red Sea. It has a coastal line, of about 2,234 km, along the red sea. About 70% of Eritrea's land is endowed with precious mineral resources such as gold, silver, copper, potash and marble (Ministry of National Development [MND], n.d.). Eritrea's thirty-year war for liberation against Ethiopia's occupation, coupled with years of recurrent drought, left its economy with a destroyed productive base (EIC, 2001; MND, n.d).

Until 1997, the country made progress in rehabilitation and reconstruction after the thirty-year war with Ethiopia (MND, n.d). From 1998 to 2000, Eritrea was involved in a border war against Ethiopia. In 2007, The Eritrea-Ethiopia Boundary Commission (EEBC) resolved that the land under dispute belongs to Eritrea, a ruling that had not been upheld by Ethiopia until July 2018.

Practically, the border war with Ethiopia has contributed to prolonged national service in Eritrea and Eritrea's weak investments in other critical social and economic sectors than defence and security (Government of the State of Eritrea [GoSE], 1995; Kibreab, 2014; MIE, 2016). In addition, Eritrea's economic challenges have been influenced by the 2009 United Nations Security Council (UNSC) sanctions against Eritrea, which were renewed in 2016 for another period of two years (E-SMART Research Team, 2010; AfDB, 2014).

Positioned for wider economic network opportunities, Eritrea is a member of the Intergovernmental Authority on Development (IGAD) and Common Market for Eastern and Southern Africa (COMESA). The country joined IGAD in 1993 and COMESA in 1994 (<https://igad.int>; www.comesa.int). In 2007, it withdrew from IGAD but in 2011 it re-joined it.

1.1.1. Economic growth and human development

In 2016, Eritrea's real Gross Domestic Product (GDP) was 3.8% from 4.8% in 2015 and 1.7 in 2014 (Nyende & Mugisha, 2017). The GDP is largely constituted by service sector at 59%, manufacturing sector at 5.9% and agriculture sector at 17.2% (AfDB et al., 2017; Nyende & Okumu, 2014). The economy is minimally diversified (Ministry of Trade and Industry - Eritrea [MoTI], 2015:14), and the economic growth is attributed to expanded mining sector activities

(Nyende & Mugisha, 2017; Nyende & Okumu, 2014). The GoSE has prioritized investments in agriculture and infrastructure in support of inclusive and sustainable economic growth, however, the performance is hampered by weak capacity of public institutions and challenges in business and investment environment, among other factors (Nyende & Mugisha, 2017).

Eritrea is ranked 179 out of 188 countries on the human development index, with a gross national income (GNI) per capita of US\$1,411 (UNDP, 2016). The country is engaged in ongoing initiatives to enhance institutions based on market economy principles in order to implement integrated economic development policies (EIC, 2001).

1.1.2. Financial and banking sector

Eritrea is ranked 185th in 190 economies on credit access by the private sector (AfDB et al., 2017). Its banking sector assets are estimated at 18.4% of GDP (AfDB et al., 2017). The country has four banks, namely the Central Bank of Eritrea, Commercial Bank of Eritrea, National Bank of Eritrea and, Commerce and Housing Bank, which are all state-owned (US Department of State, 2014, 2015). Eritrea's banking system was established under Proclamation 32/1993 and was amended under Proclamation 93/1997. Most of the operations in the banking sector have not been modernized, which contributes to inefficiencies in the business-delivery system (AfDB et al., 2017).

A large part of the population in Eritrea is unbanked, and the country's financial markets are very weak, and not up to date enough to meet the probable financing needs of SMEs (AfDB et al., 2017; GIIN & Open Capital Advisors, 2015). Regarding the need to support SMEs, there is a defunct Eritrean Development Investment Bank (EDIB) which requires recapitalization in order to accomplish its objectives (Nyende & Mugisha, 2017).

In Eritrea, microfinance started in 2005 (AfDB et al., 2017) and the Ministry of National Development manages the main microfinance programme in the country. The GoSE has served and continues to dominantly target the rural poor, especially women, across the country. Other organizations involved in microfinance are the National Union of Eritrean Youths (NUEYS) and Students and the National Union of Eritrean Women (NUEW).

1.1.3. Employment and migration

It is estimated that Eritrea has an employment rate of 78.7% of which 77.4% of the employed are considered to have a purchasing power parity (PPP) of \$2 per day (UNDP, 2015). AfDB et

al., (2017) caution that while low-income countries report very low rates of unemployment, the statistics are misleading, masking high levels of underemployment, particularly in large informal sectors with low returns and high rates of vulnerability. Unsurprisingly, Eritrea is experiencing a high emigration rate attributed to weak economic opportunities to escape poverty (United Nations Human Rights Council [UNHRC], 2016).

The population structure and the employment rate in Eritrea show the need to improve the economy by creating more jobs for youths. About 78.8% of the population is between 0 and 14 years old; and about 21.2% is in the labour market (UNDP, 2015). Hence, without reforms that diversify productivity for inclusive economic growth and development, Eritrea is likely to have unemployment crisis in the long run.

The narrow employment opportunities exacerbated by lack of new jobs have contributed to migration for more than a decade. It is reported that between 2002 and 2014, about 36,000 youths annually migrated from Eritrea due to poor economic conditions (UNHRC, 2016). Through remittances, the migrants provide an additional source of survival and social stability to the country although the remittances are an unsustainable source of income for communities. For example, children of migrants may lose ties with Eritrea and stop remittances; something that has happened in other countries such as Kosovo (Kastrati, 2015).

1.1.4. MSMEs and Private Sector Development in Eritrea

In Eritrea, the private sector is small and underdeveloped, with its MSMEs concentrated in few sectors of the economy (MIE, 2017; Nyende & Okumu, 2014). However, ironically, the MSMEs are considered critical in reducing poverty as they increase employment and income supplement opportunities, especially for youths and women in both urban and rural areas. It is reported that in 1996 MSMEs provided about 130,203 jobs in the Eritrean economy but since then no other evidence has been generated to show the link between MSMEs growth and employment (MoTI, 2015:24). Evidence from elsewhere shows that the survival and the growth of MSMEs are crucial to ensuring expansion and development of the private sector for creation of jobs and reducing poverty (ILO, 2015; World Bank, 2012).

1.1.5. Promotion of MSMEs in Eritrea: Regulatory and policy framework

Regulatory framework /Proclamations

Eritrea does not have an active constitution. The country's constitution was ratified in 1997 but has not been implemented (AfDB, 2014). The implementation was suspended due to the “no war, no peace” situation with Ethiopia following the border war from 1998 to 2000.

A considerably close regulatory framework for the MSMEs establishment and growth is the Investment Proclamation of 1994 which established a more general framework for domestic and foreign investments. The proclamation's objectives are to encourage investment, expand exports, expand employment, and encourage new technology. To promote operationalization of the proclamation, an Investment Centre was established under the MoTI.

National Development Policy

Eritrea's National Indicative Development Plan (2014 - 2018), hereafter NIDP, is an overarching five year broad developmental and economic growth plan. It considers promotion of private sector investments as cross-cutting in all the sectors but economic infrastructure. The NIDP notes that employment is a strong measure of performance of an economy.

Agriculture, industry, exports, and economic infrastructure are the country's priority sectors that can significantly contribute to sustainable economic growth. The plan emphasizes that such contribution is possible only under realistic and realizable programmes of expansion, modernization and investment. Lessons from other countries and regions, especially the Gulf Cooperation Council (GCC), show that economic diversification is critical for sustainable and inclusive economic growth and development in low-income economies such as Eritrea's (Anyahie & Areji, 2015; Callen, Cherif, Hasanov, Hegazy & Khandelwal, 2014). Generally, the diversification performance is dependent on the timing of the implementation of appropriate policies, strategies and programs.

It is noted that the general policy framework for Eritrea's industrial development integrates agriculture, mining and quarrying, energy and transportation, and trade. The NIDP recognizes that another benefit of advancing an integrated industrial policy is that a cluster of new enterprises can emerge in specific areas of high investment opportunities such as mining and transport. The expectation is that the cluster of new enterprises will stimulate growth in other sectors and substantially increase employment opportunities assuming that they grow. This is only possible under right mix of policies and conducive national and regional environment.

1.1.6. Key national programmes on MSMEs and youth employment

Since 2012, the GoSE has been promoting economic growth and reduction of youth unemployment through expansion of local private investments (Amahazion, 2016; Nyende & Okumu, 2014). In 2014, UNDP and the GoSE launched a national-wide project on Youth Employment and Skills Development to contribute to tackling youth unemployment in the country. One of the project's components is support for the establishment of micro and small businesses for youth and women. The government also has another skills development programme financed by the AfDB (African Development Fund, 2015). The programmes are in support of the notion that building a human capital development coupled with enhanced vibrant and competitive private sector in Eritrea can create more wealth and inclusive job opportunities.

1.2. Problem statement

Promotion of local investments and businesses is considered strategic to Eritrea's sustainable economic growth and creation of employment for all (MND, n.d.; Nyende & Okumu, 2014). Although Eritrea has registered positive economic growth since 2009, in same period reports indicate that there has been a shrinking of the private sector, inclusive of MSMEs; and that poverty reduction and creation of jobs for youths has been less effective (AfDB, 2014; MoTI, 2015; Nyende & Okumu, 2014; NUEYS, 2016). The most recent report on business growth in Eritrea shows that 68% of the businesses downsized, with 27% indicating stability and only 4% indicating growth (NUEYS, 2016). The available data on business growth factors in Eritrea is irregular, non-determinant, more sector-based and less comprehensive to ascertain recent prominent factors that deter the growth of MSMEs in Eritrea while projecting probable future performance. For example, a study by Eritrea's MoTI in 2015 only focused on MSEs and Handicraft Industrial establishments. So far, there is no evidence showing the link between MSMEs growth and youth employment in the case of Eritrea. Against this backdrop, the research study intended to systematically investigate the deterrents of growth of the MSMEs and the relationship between the growth of MSMEs and youth employment in Eritrea. Meanwhile, the unemployment challenge is likely to escalate due to the population expected to enter the labour productive force in the next ten years in face of weak expansion of the national production base (AfDB et al., 2016; National Statistics Office Eritrea and Fafor AIS, 2013). The study contributes to understanding the contextual nature of enterprise development and employment creation, and can inform strategic decisions on policy and practice to support rebooting of the private sector and expansion of youth employment opportunities.

1.3. Research aims and objectives

The main aim of the research was to establish the connection between MSMEs growth and youth employment and the prominent factors of MSMEs growth using the case of Eritrea. In turn, the study also intended to suggest a growth model of MSMEs for job creation.

1.3.1. Research aims

The study pursued the following specific aims:

1. To determine the factors that deter the growth of MSMEs, and extract the prominent factors for the growth of enterprises.
2. To explore the relationship between MSMEs growth and youth unemployment.
3. To recommend appropriate measures through which MSMEs can grow for youth employment.

1.3.2. Research objectives

In line with the three specific aims, the study particularly sought to:

- 1.1. Compile data sets on the growth of MSMEs and the seven identified determinants of MSMEs growth
- 1.2. Test the selected hypothetical determinants of growth of MSMEs against the collected data on the growth of MSMEs.
- 1.3. Examine determinants that show a significant effect on the growth of the enterprises
- 2.1. Extract data sets from the growth of MSMEs and youth employment
- 2.2. Examine the changes in MSMEs growth against changes in youth employment
- 2.3. Examine a framework for impact investing in youth employment through MSMEs
- 3.1. Examine probable strategic measures of business growth with respect to job creation

1.4. Research questions and hypotheses

The study established the research questions and hypotheses to assist in the operationalization of the study, using a case of Eritrea.

Primary research question:

- What should be done to enhance the growth of MSMEs and related impact on youth employment?

Secondary research questions:

1. What are the prominent factors that deter the growth of MSMEs?

2. What is the relationship between MSMEs growth and youth employment?
3. What measures should be taken to facilitate the growth of MSMEs?

Research hypotheses

The study asserted the following hypotheses:

- H₁: Growth of MSMEs is deterred by weak sector positioning, poor education, stringent taxes, obstructive access to raw materials, obstructive banking regulation, obstructive general business regulation, obstructive access to technology, corruption, weak contract enforcement, weak access to finance and obstructive exchange rate.
- H₂: In H₁ there exist factors with a significant effect on the growth of MSMEs.
- H₃: Growth of MSMEs is positively related to youth employment.
- H₄: MSMEs growth is a resultant of appropriate measures on policy, institutional arrangements, enterprise development and financial deepening.

1.5. Significance of the study

Eritrea emphasises equity, inclusivity and justice in its economic growth and development. The investigation on the performance of the MSMEs is important for generation of up to date evidence and understanding on how to improve private sector performance for job creation and contribution to economic growth (Asian Development Bank, 2007; Deloitte, 2017).

Understanding the deterrent factors is critical to designing better-targeted policies, strategies and investment models and decisions regarding expansion and vibrant MSMEs industry (ILO, 2015; Okpara, 2011). The GoSE recommends financing right ventures (MND, 2014:8). The results of this study are likely to inform investment decisions concerning national programme portfolio for investments to promote the growth of MSMEs.

Expanding employment opportunities is strategic to inclusive economic growth, social and political stability of the country. The MSMEs present an opportunity to expand economic opportunities in the country, only if they can develop and grow. They also present an opportunity for expanding domestic resource mobilization required to address national development needs.

Therefore, the results of the study will contribute to the scholarly debate on contextual nature determinants and modelling of growth of MSMEs in developing economies. They may also

help the GoSE and its development partners to revise and develop better policies and strategies that facilitate and promote the growth of MSMEs.

1.6. Theoretical perspectives: MSMEs growth, job creation and investment decision

There is no exact theory that gives a generalized understanding of the growth of MSMEs, linkages of MSMEs growth, and job creation and investment decisions in financing MSMEs.

MSMEs growth

The study was informed by the theoretical works of Penrose (1959) and Ansoff (1965). Penrose (1959) theorizes that firm growth is dependent on its competitive advantage which is assisted by internal and external resources. In similar discourse, Ansoff (1965) goes beyond Penrose (1959) and claims that the effective and innovative managerial resources within the firm determine its growth. Ansoff's (1965) framework posits that businesses thrive if administrative, operational, strategic and exogenous factors are favourable.

For operationalization purposes, this study submerged strategic factors as part of operational factors (Okpara, 2011). Administrative factors in the framework included enterprise structure, resource acquisition and development and general management issues (Okpara, 2011). Operational factors were around the allocation of resources in an efficient, effective, relevant and sustainable manner (Okpara, 2011); examples of such issues are research and marketing. The exogenous factors covered issues outside the control of the enterprise (Okpara, 2011). They included infrastructure issues, corruption, technology, and demand conditions.

MSMEs and job creation

The classical thesis of SMEs development based on industrialization in Germany indicates that advantages of SMEs, such as employment, will diminish over time and large enterprises (LEs) will, eventually, predominate (Hoselitz, 1959; Tambunan, 2008). This implies that the economic productivity share of the MSMEs will decline relative to LEs during economic development (measured by an increase in GDP). Thus, shares in terms of employment and the number of enterprises will steadily decline (Tambunan, 2008). Still, the thesis shows that in the early stages or towards industrialization, MSMEs are critical in job creation and can easily dominate and grow into larger sized enterprises (Tambunan, 2008). Eritrea is in the stages towards industrialization.

The main weakness of the classical thesis is that it does not consider issues of SMEs growth through economic diversification over time, hence the existence of modern paradigm on SMEs development. Tambunan (2008:127) states that the 'modern' paradigm on SMEs development, suggests that, as income per capita increases during economic development, the 'economic' share of SMEs would increase; although the assumed positive correlation will vary among countries due to differences in many internal factors, including level and pattern of economic development and basic economic conditions.

Investment decision in development programmes

Enhancing the growth of the MSMEs for job creation is one key result area for the GoSE and its development partners. The notion of impact investing better informs this study on investment decision criteria in financing development initiatives in the public sector. Impact investing alludes to a shift from traditional investment decision of considering only risks and financial returns and rather introduces a focus on impact dimension as an investment decision criterion (Allman & De Nogales, 2015; Johnson & Lee, 2013). The declared impact should be trackable, measurable and socially beneficial. The rational expectations theory suggests that funders will invest according to what they rationally believe will happen in the future. Such a theory, combined with impact investing, helps players in development finance to better position investments. Hence, the analysis and build-up of recommendations out of the study were informed by impact investing approach and rational expectations theory of investing.

1.7. Research assumptions

The research study had the following assumptions:

- a) Expansion of job opportunities for youths through enterprise development support will remain a priority in the short and medium term in developing countries;
- b) There will be progressive pursuance of the private sector development through MSMEs growth in the long term;
- c) Government and development financiers on youth employment creation through MSMEs pursue contextually efficient and effective strategies; and
- d) International reports, consultancy and Government reports have enough scientific and professional rigour and hence their information is accurate and fair.

1.8. Organization of the study

The entire research report has six (6) chapters. The rest of the report is structured as follows:

- Chapter 2 is the study's literature review. The review focuses on similar studies conducted in different locations and it draws comparative empirical observations based on the level of economic development. Particularly, it describes the study's conceptual and analytical frameworks and it introduces the empirical independent variables and justifications for their consideration in the study.
- Chapter 3 presents the study's methodology by discussing the research strategy, approaches, methods and techniques used in the study. The chapter describes the econometric models and provides data description of the variables in the study.
- Chapter 4 presents the study's findings, analysis and discussion. The study results are analysed against the set hypotheses and are based on preliminary statistical analysis of descriptive statistics, correlation analysis, binary logistic regression and ordinal logistic regression using STATA. The discussion addresses the objectives of the research and refers to the analytical framework as developed in the literature review.
- Chapter 5 presents the study's conclusions and recommendations by reflecting on the purpose of the research and the study's theoretical and policy implications.

1.9. Conclusion

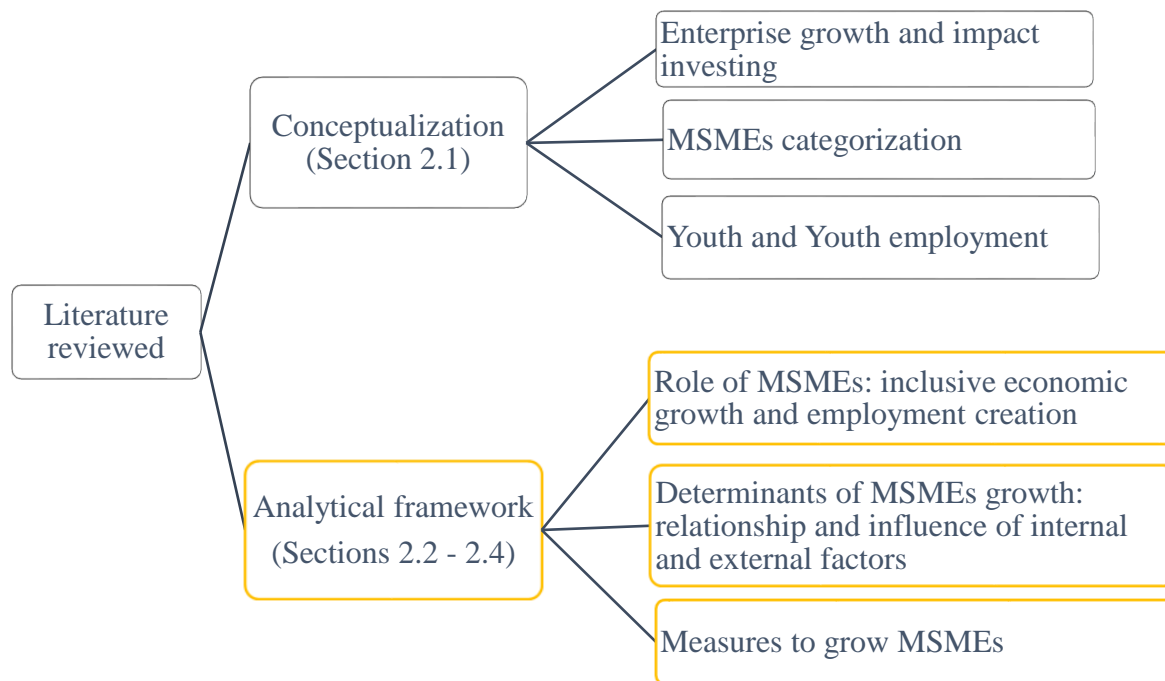
The growth of MSMEs can play a critical role in increased diversification and expansion of Eritrea's economy, hence its likelihood to contribute better to sustainable and inclusive economic growth and development. The dominance of the public sector is not enough to address the challenge of youth unemployment and to sustainably reverse emigration trends in the medium to long-term. A more diversified economy has greater resilience, stand various types of shock and can recover from them when affected by them. Timely diversification of the economy from the mining sector will likely lead to successful diversification in pursuance of sustainable and inclusive economic growth. The growth of MSMEs, as part of the development of the private sector, will help create more private sector jobs. It will also increase the productivity of the economy and sustainable growth. The noted shrinking trend of the private sector is inconsistent with ambitions of sustainable and resilient economic growth and development. The shrinking of MSMEs sector puts more youths and women at risk of unemployment; and reduces the possibility of innovation and sustainable local development. It is imperative to understand incentives that can advance the growth of MSMEs at the firm and sectoral levels in Eritrea.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter is a review of the available relevant literature on the growth of MSMEs and creation of employment. The literature review is informed by the purpose and aims of the study presented in Chapter 1, and Figure 1 is an overview of this chapter. It discusses experiences from fragile, developing, and developed countries which collectively depict the varying effects of concepts and variables on growth of MSMEs under different conditions of an economy.

Figure 1: Flow chart of the literature review



2.2. Conceptualization: Enterprise growth, categorization of MSMEs and youth

The study seeks to examine enterprise growth and its relationship to youth employment. However, the concepts of enterprise growth, enterprise categorization, youth and youth employment are defined varyingly in the reviewed literature. Consequently, the study adapts the following definitions that will guide the interpretation of these terms in this study:

a) Enterprise growth

Enterprise growth refers to changes in business sales of an enterprise within a specific duration (ILO, 2015; Janssen, 2009; Kastrati, 2015; World Bank, 2009). The study adopts changes in

sales as a measure of growth to ensure that it maximises its empirical analysis of the connection between MSMEs growth and employment opportunities in Eritrea.

This method of measuring enterprise growth is one of two main methods of MSMEs growth. The second method involves measuring the number of additional people employed by a firm within a specific period within a calendar year (Ardishvili, Cardozo, Harmon & Vadakath, 1998; Davidsson, 1991; Delmar, 1997; Weinzimmer, Nystrom & Freeman, 1998; Wiklund, 1998). Other minor ways of measuring enterprise growth are, assets, market shares, and profits, which are less objective and harder to obtain (Delmar, 1997; Zhou & Wit, 2009). In some cases, the use of multiple growth indicators to study enterprise growth is recommended (Delmar, Davidsson & Gartner, 2003; Janssen, 2009).

Case for impact investing in job creation through MSMEs

Impact investing refers to an investment where objectives on social or/and environmental returns are pre-set and measured, alongside financial returns (Chodos & Johnson, 2014; Johnson & Lee, 2013; www.thegiin.org). Job creation can, for example, be considered a social impact.

Adoption of impact investing approach in financing MSMEs growth in job creation can reduce the risk for jobless growth. In strict business perspective, measuring the growth of enterprises by employment is a less direct measure of growth and a less accurate one considering that the aim of business is to make profits which is a factor of sales (Friedman, 1970). For some entrepreneurs, increase in the number of employees is not an indicator of growth (Achtenhagen, Naldi & Melin, 2010). There is a gap in the relationship between measures of growing MSMEs and the generation of jobs and their nature (ILO, 2006). Consequently, expecting growth of MSMEs to create jobs without employment creation as a specific objective is an impact risk to investments in MSMEs growth for employment creation (Johnson & Lee, 2013; Thornley, Wood, Grace & Sullivant, 2011).

b) Categorization of enterprises in the MSMEs sector

The categorization of the enterprises is adapted with respect to MSMEs coding by Eritrea's MoTI. Therefore, this study defines MSMEs based on number of employees as follows (MoTI, 2015): micro comprises of less than 2 employees, small comprises of 3 to 9 employees and medium comprises of 10 to 24 employees. In Eritrea, the categorization is solely on number of employees and not ownership type, assets' value or the annual turnover.

In general, the categorization of micro, small and medium enterprises varies from economy to economy, and from institution to institution, and usually over a period of time (ILO, 2006). Table 1 gives an example of the categorization variation:

Table 1: Variations in classification of MSMEs among organizations and countries

Institution/ Country	Micro	Small	Medium
United Nations Industrial Development Organization (UNIDO)	<9	<49	<250
European Union (EU)	< 10	<50	<250
International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA)		<50	<300
Egypt	<4	<15	<49
Tanzania	<4	<50	<99
South Africa	<5	<50	<200
United Arab Emirates	<9	<49	<499
Somalia			<500

(European Union Commission, 2003; United States Agency for International Development [USAID], 2007; Government of Tanzania, 2003)

c) Youth

Youth refers to those people in the age range of 14 to 40 (NUEYS, 2016). This definition is adopted from Eritrea's national policy. Youth are defined differently by countries, regional bodies and international organizations. For instance, the United Nations defines youth as those persons in the age range of 15 to 24 (www.unesco.org); while the African Union (AU) defines the youths as those from 15 to 35 years (AUC, 2006).

d) Youth Employment

Youth employment refers to the total number of young persons who work in or for an enterprise, including working proprietors, active business partners, and unpaid young family members as well as persons working outside the enterprise when paid by and under the control of the enterprise (United Nations, 2009). The definition is adapted from International Recommendations for Industrial Statistics (United Nations, 2009) for the sake of consistency and comparability of statistics related to employment. With this definition, employment type can be full time, part-time, or seasonal workers on the payroll of an enterprise. Those on short-term leave or on strike but still on the payroll are also considered to be employed.

2.3.Role of MSMEs in development

Among other verifiable contributions of MSMEs in development, this study sought to examine the contribution of MSMEs in inclusive economic growth and job creation for young people. Generally, MSMEs play a significant role in inclusive economic growth and development and poverty reduction which also contribute to peace building in developing countries. In Africa, formal recognition of the role of MSMEs in economic development has been weak yet the MSMEs virtually possess the significant potential to drive the nature of economic development as desired (AUC, 2015; Muriithi, 2017; USAID, 2008; World Bank, 2017). To enable better contributions of the MSMEs, enterprise development and poverty reduction are part of the current international development agenda (AUC, 2015; UN, 2015).

2.3.1. Inclusive economic growth

MSMEs play a critical contributory role in economic growth and development (Gupta, Guha, & Krishnaswami, 2013; Savlovski & Robu, 2011; United Nations Conference on Trade and Development [UNCTAD], n.d.). There is a convergence that MSMEs significantly contribute to industrial development and development of local economies hence referred to as engines of economic development (Abor & Quartey, 2010; UNIDO, 2016; ILO, 2015; Lukács, 2012). In industrial development, the MSMEs contribute in the value chains in different crucial ways (Abor & Quartey, 2010). The MSMEs usually use local resources; with mainly micro and small enterprises having a tendency to employ the poorest of the poor in many developing countries (Abor & Quartey, 2010; Muriithi, 2017). The poorest of the poor tend to be characterized by a lack of specific skill sets, low skills and inexperienced persons (AfDB, 1997; MoTI, 2015). Therefore, the projections show that MSMEs tend to serve as safety nets to such people in economic growth, especially in diversified economies. Using a case study of Eritrea, this study will establish the connection between MSMEs and creation of jobs for youths.

2.3.2. Employment creation

Evidence from the literature suggests that the MSMEs contribute significantly to inclusive job creation in many countries (Gupta et al., 2013; ILO, 2015; Nasr & Rostom, 2013; Savlovski & Robu, 2011). Globally, they are the biggest contributor to total employment and job creation (ILO, 2015; Maksimov, Wang, & Luo, 2017; Ntiamoah, Opoku, Abrokwa, Baah-Frimpong, & Agyei-Sakyi, 2014). Although, their level of contribution varies from one economy to the other, MSMEs relatively contribute less to GDP than they do to employment creation (Muriithi,

2017). In such notion, the findings of this study will contribute to the empirical evidence on the relationship between MSMEs growth and youth employment.

In many emerging economies, expansion of the SMEs boosts employment more than LEs growth because SMEs are more labour intensive than technology-based (Abor & Quartey, 2010; Maksimov et al., 2017; Mead & Liedholm, 1998; Muriithi, 2017). Furthermore, in many cases, the MSMEs are considered to better adapt to market conditions than the LEs hence their tendency to cushion their employees better (Abor & Quartey, 2010; Muriithi, 2017). From this perspective, supporting the growth of MSMEs represents an inclusive focused poverty alleviation tool (Maksimov et al., 2017).

The 2015 Human Development Report claims that enhancing human development through work also requires policies and strategies in creating work opportunities. Thus, the MSMEs are critical in creating work opportunities for the poor and the poorest (ILO, 2015; Maksimov et al., 2017; Muriithi, 2017). For instance, in Indonesia, the SMEs policy explicitly intends to generate employment and, in turn, reduce poverty (Tambunan, 2008).

The evidence on MSMEs growth and employment creation is consistent with practical trends, development reports, and current development goals at global, regional, and country level (AfDB et al., 2017; AUC, 2015; ILO, 2006). For instance, Fjose, Grunfeld and Green (2010) show that micro enterprises accounted for 30% of employment, with 20% for small and 10% for medium enterprises. The emphasis on MSMEs growth to generate jobs is with respect to increasing inadequate growth of formal employment and jobs under public wage bills.

Scholars and researchers generally agree that MSMEs perform useful roles in ensuring expanded income opportunities in the society. Many studies carried out in various countries have concluded that small businesses play a major role in job creation (Harvie, 2008; MoTI, 2015; Muriithi, 2017; Savlovski & Robu, 2011). A plausible explanation is that micro, small and medium enterprises usually require lower capital per production/ service and in relation to employment creation (Abor & Quartey, 2010; Quartey, Turkson, Abor, & Malik, 2017). In Rwanda, SMEs provided about 60% of the total private sector jobs; while in Ethiopia and Uganda employment contribution is as big as 90% (Muriithi, 2017). This study will establish the nature of connection between MSMEs growth and employment among youths in Eritrea.

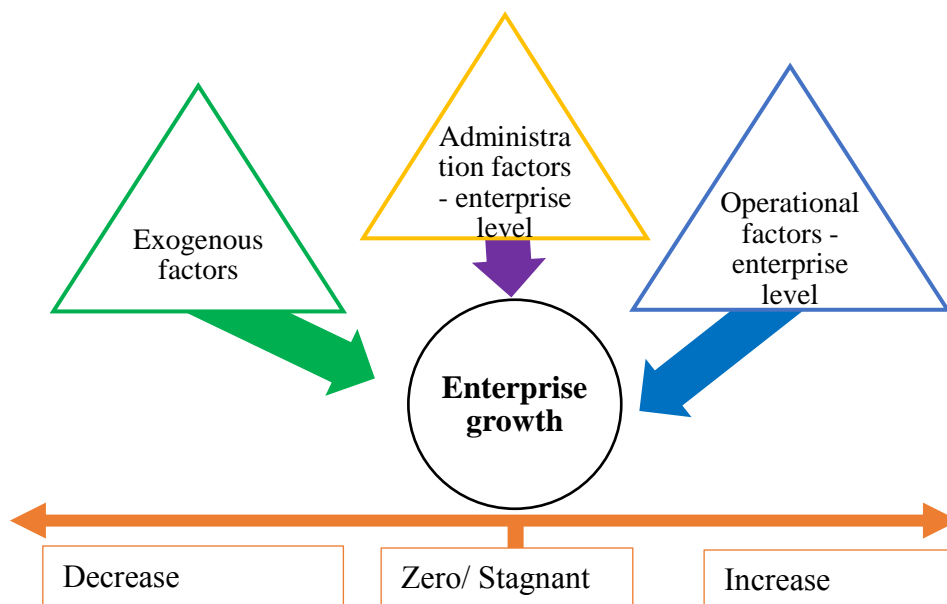
2.4. Growth factors for MSMEs

In the present study, MSMEs growth is the dependent variable and is measured by the changes in business sales within a specific period. The growth factors are the independent variables that determine the status of growth the enterprises. These factors are usually different among individual enterprises, among sectors, between rural and urban, among countries and from region to region (Abdullahi, Abubakar, Aliyu & Umar, 2015; Gupta et al., 2013; McPherson, 1996; Mead & Liedholm, 1998; Tambunan, 2008; World Bank, 2017). Using evidence from Eritrea, this study will identify the factors that deter the growth of MSMEs and classify the most prominent ones.

2.4.1. Categories of factors that affect growth of MSMEs

Firm Growth is a function of administrative and operational factors of an enterprise, and exogenous factors in the economy of an enterprise (Lévy & Powell, 2005; Penrose, 1995; World Bank, 2017). Administrative and operational factors are internal factors. Changes in administration, operational and exogenous factors collectively affect the level of growth of an enterprise albeit with varying extents of influence on enterprise growth. Figure 2 gives a graphic view of the probable relationships between the factors against firm growth.

Figure 2: A graphic view of the categorical determinants of enterprise growth



Author's own conceptualization

Some literature indicates that internal factors are more significant than the external factors in influencing enterprise growth. For example Zhou and Wit (2009) on SMEs in Denmark, found

that exogenous factors (business environment) did not have an effect on enterprise growth unlike enterprise characteristics (part of internal factors) which had most influence on firm growth; while Grimsholm and Poblete (2010), and EBRD, EIB, and World Bank (2016) found that the exogenous factors were the most significant on enterprise growth in SMEs in Thailand and MENA region, respectively. This study will also contribute to this existing debate on which factors matter most for enterprise development using evidence from Eritrea.

Administration factors are firm level resources and capabilities for production of goods and services (Grimsholm & Poblete, 2010; Soini & Veseli, 2011). For example, education level of personnel in an enterprise is commonly an important factor for efficient and effective production (Kusi, Opata, & Narh, 2015; Zhou & Wit, 2009). Other examples of administration factors are firm size, accounting standards, gender of enterprise owner (Bouazza, Ardjouman, & Abada, 2015; Grimsholm & Poblete, 2010; Kusi et al., 2015).

Operational factors are firm level factors geared at strategic positioning and execution of resource allocation, production and distribution of services and goods of an enterprise (Bravo-Biosca, Criscuolo & Menon, 2013; Kusi et al., 2015; Okpara, 2011). Strategic operations ensure most optimal pathways in production and profit making. These are exemplified by networking, financing strategy, marketing strategy and innovation strategy.

Exogenous factors are factors outside the control of the enterprise and they comprise of laws and regulations, policies, institutions, technological and practice matters in an economy in which an enterprise(s) operates (World Bank, 2017; Zhou & Wit, 2009). As much as these can be incentives and opportunities, they may interplay as threats and consequently constrain business growth. Examples of exogenous factors are access to finance, competition, corruption, tough labour laws and taxes (EBRD et al., 2016; USAID, 2008; World Bank, 2017).

2.4.2. Determinants of MSMEs growth: a contextual perspective

Growth determinants of MSMEs are contextual and evidence suggests that modelling their growth to context is very important. In this perspective, this study will identify the determinants of MSMEs growth in Eritrea. Practically, certain factors are likely to appear in every growth model for MSMEs, albeit with varied effect according to context. The determinants of MSMEs growth can also be referred to as constraints where their effect is negative. Table 2 gives a snapshot of how various determinants have appeared significant in different countries, regions and periods.

Table 2: Comparison of the major constraints of MSMEs growth

Major constraints of SMEs growth	Eritrea MSEs & HIEs 2015	Thailand (2010)	Tanzania (2012)	Developing Countries (Wang, 2016; World Bank, 2011)	ASEAN SMEs	Middle East and North Africa (2016)	Latin America, SEs (1995)	Ghana, textile and garment manufacturing (2008)
Lack of marketing		X			X		X	X
Legal status of firm	X							
Firm ownership				X				
Poor/ Weak infrastructure	X		X			X	X	X
Corruption		X				X		
Scarcity of raw materials	X		X		X			
Low/lack technology	X	X	X		X		X	X
Low/absence of demand	X		X					
Lack of/ weak access to finance	X	X	X	X			X	X
Unbalanced competition	X	X	X	X		X	X	
Poor legal environment				X				
Policy uncertainty						X	X	
Trade barriers		X				X		

(EBRD et al., 2016; Grimsholm & Poblete, 2010; Tambunan, 2008; UNCTAD, 2011; Wang, 2016)

Table 2, like Tambunan's (2008:115) view, shows that there exist some constraints that seem common to all MSMEs, namely lack of capital, difficulties in procuring raw materials, difficulties in marketing, low technological capabilities, poor infrastructure (which includes transport, energy, water and access to basic utilities), high transaction costs associated with bureaucracy, and policies and regulations that breed market distortions.

2.4.3. The determinants of MSMEs growth: an empirical perspective

Empirical evidence shows that in some cases, either internal or external factors may affect firm growth but not necessarily both at once (Grimsholm & Poblete, 2010; Pelizza & Machado, 2016; Zhou & Wit, 2009). This study will contribute to gauging which factor categories seem more prominent in the case of Eritrea. Herein, the determinants of MSMEs growth are categorised broadly as internal and external factors. Much of the literature concerns itself with SMEs rather than MSMEs; but this study will focus on MSMEs.

2.4.3.1. Internal determinants

The internal determinants are classified in terms of administrative and operational factors.

a) Administrative factors

Empirical evidence shows that the growth of an enterprise is influenced by a number of administrative factors, and the following often appear as major administrative factors that influence the growth of an enterprise (Achtenhagen et al. 2010; Barringer, Jones & Neubmaun, 2005; Dobbs & Hamilton, 2007; Kiruja, 2013; McPherson, 1996; Zhou & Wit, 2009):

i) Age of a business owner or manager:

Young entrepreneurs grow businesses more than elders do (Kiruja, 2013; Kumar, 2007; Wright & Stigliani, 2012). Kiruja (2013), for example, found that there was a significant positive relationship between age and growth of MSEs. This relationship may be attributed to the view that young entrepreneurs are more energetic and risk averse than their older counterparts (Davis & Shaver, 2012; Navaretti, 2014).

ii) Gender of owner or manager:

Men-owned businesses grow more than female-owned businesses (Kiruja, 2013; McPherson, 1996). This is due to socio-economic limitations such as education attainment, experience, and female responsibilities for child and home care (Kiruja, 2013). Other studies in middle and high-income countries, such as Australia and Canada, however, show that there is no relationship between gender and enterprise growth (Johsen & McMahon, 2005;

Papadaki & Chami, 2002). Similarly, in South Africa, another study found no significant difference in business growth based on gender (Brijlal et al., 2013).

iii) Education of owner or manager:

There is a positive relationship between the level of formal education and growth of MSMEs (Brijlal et al., 2013; Grimsholm & Poblete, 2010; Kiruja, 2013; McPherson, 1996; Muriithi, 2017). Thus, the entrepreneurs with higher levels of education are likely to be successful in growing their businesses when compared to entrepreneurs with little or no education (Lussiers & Pferfer, 2001). Higher education levels tend to help an entrepreneur to have better knowledge, skills and attitude that influence quality, efficiency and effectiveness required for success in growth of an enterprise (Bratt-Pugh, 2005; King & McGrath, 2002; MacPherson & Holt, 2007; Thassanabanjong, Miller & Merchant, 2009).

iv) Intention to grow:

There is a positive relationship between enterprise growth and an entrepreneur's intention to grow especially, in the light of the argument that some enterprises do not intend to grow while those that desire to grow, desire to do this at different preferred rates (Delmar & Wiklund, 2008; Douglas, 2013; Headd & Kirchhoff, 2009; Wakkee, Van der Veen & Eurlings, 2015).

v) Firm age (firm establishment):

Two perspectives about the relationship between enterprise growth and firm age emerge from the literature reviewed. The first is that there is no significant relationship between firm age and growth (Hamilton, 2010). The second one is that there is an inverse relationship (Coad & Tamvada, 2012; Evans, 1987; Jovanovhich, 1982; McPherson, 1996; Yasuda, 2005). Luidin (2004) found that this inverse relationship trend is with respect to firm size; and that only firms with fewer than 25 employees experienced growth decrease against firm age, and firm growth increased with firm age for firms with more than 25 employees. Similarly, young enterprises, below five years, tend to grow very fast (Sims & Regan, 2006).

vi) Firm size:

While some evidence shows that there is no significant relationship between firm size and growth (Hamilton, 2010), other evidence shows that firm size has an inverse relationship with firm growth (McPherson, 1996). Small firms readily adapt to environmental changes than do large firms (Franicevic & Bartlett, 2001).

vii) Legal status:

Legal status can be a sole proprietorship, partnership or corporation. Sole proprietorships are more likely to exhibit growth as compared to any other forms of legal status (Bouazza et al., 2015; Levy & Powell 2005). Practically, the legal status of a firm tends to influence firm structure. Enterprises with less sharing of management responsibilities tend to have low growth (Bouazza et al., 2015). However, Delmar and Davidsson (1998) found that incorporated firms experience higher growth than do unincorporated ones. The observation is attributed to the profit-making expectation of corporations and the ability of corporations to easily access finance for operations and/or investments (Jensen, 1998; Kiruja, 2013).

viii) Capital financing:

There is a positive relationship between financial capital of an enterprise and its growth (Muriithi, 2017; Sleuwaegen & Goedhuys, 2002). Inadequate financial resources to meet operational and investment needs tend to constrain the development and growth of SMEs (Harvie, 2005; Sleuwaegen & Goedhuys, 2002). There is general consensus that some of the main drivers of weak or lack of capital are inadequate and shallow capital markets, high cost of borrowing, and lack of information by the entrepreneurs (Abor & Quartey, 2010; Beck & Cull, 2004; Muriithi, 2017; Nichter & Goldmark, 2009; Wang, 2016).

b) Operational factors

The growth of an enterprise is also influenced by operational factors. The following appear to be operational factors that usually influence the growth of an enterprise (Evans, 1987; ILO, 2015; Motilewa, Ogbari & Aka, 2015; Nasr & Rostom, 2013; Okpara, 2011; Tambuman, 2008; World Bank, 2009):

i) Business location:

The location of an enterprise is linked to its growth opportunities (Reid & Xu, 2012). Generally, enterprises in urban, commercial and semi-urban locations grow faster than those in outskirts, rural areas, or small communities (Delmar et al., 2003; Liedholm, 2002; McPherson, 1996). Location is critical because it determines accessibility to the relevant customer base, proximity to suppliers, labour costs, and other relevant infrastructure such as electricity, water, communication and transportation (Soini & Veseli, 2011).

ii) Marketing strategy:

There is a positive relationship between marketing capabilities of an enterprise and its growth (Brush, Ceru & Blackburn, 2009; Reid & Xu, 2012; UNIDO, 1999). Lack of

marketing capabilities negatively affects business growth and development (Barringer et al., 2005; Brush et al., 2009; Shafique et al., 2008). Usually, MSMEs lack competitive knowledge or information about markets; and communicating about their products and establishing effective distribution channels (Brush et al., 2009). In a demonstration of inter-relatedness nature of the determinants of growth, location is also considered a constraint of marketing among rural SMEs compared to their urban counterparts (Watson & Netswera, 2009).

iii) Research and development:

Research and development (R&D) influence the growth of an enterprise. R&D, for example, has a positive relationship with firm growth (Sidik, 2012). R&D is the basis for innovation and can help an enterprise to establish business ideas and investigate their viability. With weak or without R&D focus, firms may be weak in innovation and become less competitive in economies strong competition (Morrison, 2006).

iv) Networking (Association membership):

This is a measure of the enterprise's competitive advantage rendered due to professional relationships or entrepreneurially-oriented connections in their environment (Sirec & Bradac, 2009). There is an indication that networking has a positive relationship with firm growth (Beekman & Robinson, 2004). Through networks, business tends to benefit from operational and strategic matters such as joint ventures, licensing, marketing and access to supplies (Groen, 2005; Hakansson & Snehota, 1995; Sirec & Bradac, 2009).

v) Skilled labour:

The skilled labour force is related to productivity and firm growth. Inadequate or lack of skilled labour force has a negative relationship with firm growth (APO, 2001; Bouazza et al., 2015; Sleuwaegen & Goedhuys, 2002; The Small Enterprise Development Agency, 2016). A skilled labour force usually is motivated, has more learning and innovative abilities which, in turn, improve enterprise performance (Bouazza et al., 2015; Geeta & Hong, 2003; Grimsholm & Poblete, 2010; Hewitt & Wield, 1992; Holden, Jameson & Walmsley, 2007; Sleuwaegen & Goedhuys, 2002).

Generally, the reviewed literature shows that the nature of the influence of the internal determinants of growth of the MSMEs is inconclusive; it may vary according to the sector, stage of firm growth, a period of study, and economy. For instance, OECD (1997) argue that

management capabilities are crucial to survival and growth for early-stage enterprises unlike for a mature firm while determinants such as innovation (as part of research and development) and human resource strategies are crucial at a mature stage of an enterprise in contrast to at an early stage of an enterprise.

2.4.3.2. External determinants

Business environment tends to have an influence on conduct or performance of the MSMEs (World Bank, 2017). In the reviewed literature the following emerge as significant exogenous factors that influence the growth of an enterprise (Abor & Quartey, 2010; EBRD et al., 2016; Okpara, 2011; Wang, 2016; World Bank, 2017):

i) Corruption:

There is an inverse relationship between corruption and growth of an enterprise (Okpara, 2011). Corruption is defined as a personal gain of officials through government/ private properties (Shleiffer & Vishny, 1993). Generally, it is one of the major challenges facing businesses in Africa (Muriithi, 2017). It raises operational costs, creates uncertainty and deters investments (Gaviria, 2002; Kimuyu, 2007). MSMEs are more exposed to corruption than are large firms due to the level of legal business conduct awareness (Muriithi, 2017).

ii) Contract enforcement:

Contract enforcement is part of the legal environment. The legal environment is measured by rule of law index which covers the extent to which agents/ individuals have confidence in and abide with rules of society, the quality of contract enforcement, property rights, the police, and the courts as well as the likelihood of crime and violence (www.theglobaleconomy.com/rankings/wb_ruleoflaw/). Generally, weak legal contract enforcement inhibits the growth of enterprises (Abor & Quartey, 2010; Balcerowicz, Balcerowicz & Hashi, 1998; Davidsson, 1989; UNIDO, 2013; World Bank, 2017).

iii) Bureaucracy:

When measured by time taken in government procedures and processes in providing business services such as dealing with permits, licenses and registering property influence business growth (Abor & Quartey, 2010; World Bank, 2017); an inverse relationship exists between bureaucracy and growth of an enterprise (Bouazza et al., 2015; Small Enterprise Development Agency[SEDA], 2016).

iv) Competition:

In general, unfair or weak competition tends to reduce the chances of growth for the MSMEs (Krasniqi, 2007; World Bank, 2012). Competition, defined as the ability and opportunity to enter/ penetrate or access a market share, affects the growth of enterprises. Generally, enterprises with relatively high market share or high capital tend to determine or influence product or service prices that even seek to promote their dominance (Levy & Powell, 2005; Walley, 1998). Fair competition can be a source of innovation while unfair competition tends to give rise to corruption (Krasniqi, 2007; Soini & Veseli, 2011).

v) Demand for product and services:

Demand for products and services is measured by an increase in income per capita (Okpara, 2011). There is a positive relationship between the demand and the growth of SMEs (Okpara, 2011). Thus, the low demand for products and services negatively affects business growth and consumer behaviour may not only be determined by income but also by taste.

vi) Access to financial support/ development:

Evidence shows that weak or lack of access to financial support negatively affects business growth (Okpara, 2011; Sleuwaegen & Goedhuys, 2002; Wang, 2016). Access to financial support covers banking, loans, capital markets, interest rates, transaction costs and asymmetric information that exist between banks and borrowers (Brown, Earle & Lup, 2005; UNIDO, 1999; Wang, 2016; World Bank, 2017). Access to financial support affects levels of business capital required for operations and investments. However, external financing needs and access vary by a firm's sector, development stage, and location (UNIDO, 2013; SEDA, 2016; World Bank, 2017).

vii) Taxes

An inverse relationship exists between tax and enterprise growth (Bouazza et al., 2015). High tax rates reduce profit for businesses, internal sources of financing, and subsequently reduces investment opportunity which drives growth (World Bank, 2017).

viii) Access to technology:

Enterprises with a good application of technology tend to grow when contrasted with those with poor or without application of technology (World Bank, 2009; UNIDO, 1999). For example, SMEs that use efficient technology usually improve their productivity and strengthen their competitiveness. In general, however, SMEs have challenges in access to appropriate technology (Abor & Quartey, 2010).

ix) Infrastructure:

A positive relationship is recognised between availability of infrastructure and growth of MSMEs (SEDA, 2016; World Bank, 2017). In other words, the extent of availability of infrastructure has a related cost in doing business (Bouazza et al., 2015; McPherson, 1996; UNIDO, 1999). Infrastructure includes electricity, roads, building premises, and water supply, with some infrastructure being more sectoral oriented.

2015

x) Access to raw materials:

There is a positive relationship between the availability of raw materials and the growth of an enterprise (Cressy, 2009; UNIDO, 2013). For example, the growth of MSMEs is weakened by policies that lean towards import rather than industrialization (Helmsing & Kolstee, 1993; World Bank, 2017).

The reviewed literature shows that the growth of MSMEs is variedly influenced by both internal and external factors. The results suggest that the influence varies based on business sector, region/location or economies or enterprise category, and on business cycles (ILO, 2015; Frimpong, 2013; Okpara, 2011; Tambuman, 2008). Also, the literature posits that in developing countries, MSMEs growth is more influenced by external determinants than internal ones.

2.5. Measures of growing MSMEs and tackling youth unemployment

The reviewed literature suggests that the measures should target the specific hindrances or constraints of MSMEs growth. Evidence shows that business environment reforms have a positive effect on the generation of jobs and the nature of the jobs created (International Labour Office, 2006). It is estimated that countries with successful reforms improve their job generation by 2.3 percent annually (ILO, 2006), and Asia and Latin America stand out as examples of the extent to which business enabling environment reforms can be productive (EBRD et al., 2016). In accord, this study will establish the appropriate measures through which MSMEs can growth for youth employment using a case of Eritrea.

Some of the common measures employed or recommended to develop and grow MSMEs are:

a) Skills and entrepreneurship capacity development programs

This refers to the provision of training to enhance enterprise management and entrepreneurship abilities, and it includes a focus on general management, entrepreneurship,

human resource, marketing and production. Many countries, e.g. Indonesia, Tanzania, South Africa and Rwanda have applied this strategy (Government of Rwanda, 2010; Tambunan, 2008; UNIDO, 2013), and in South Africa it led to the creation of a specific agency, the Small Enterprise Development Agency (SEDA, 2016).

b) Provision of capital/ credit acquisition assistance:

MSMEs should be provided with capital and credit assistance (Sleuwaegen & Goedhuys, 2002) to assist them to build an acceptable profile or requirements that can enable them to perform productively (Soini & Veseli, 2011). With increased access to capital and credit assistance, MSMEs may have improved operations and investments (Harvie, 2005; Leopairote, 1997). Another strategy among MSMEs is the formation of cooperatives to convince financial institutions on reduced credit risk (Abor & Quartey, 2010). However, in developing countries, much emphasis should be given to the building of the capital markets or credit grants to meet existing huge demand (Grimsholm & Poblete, 2010).

c) Pro MSMEs interest rates

The reviewed literature suggests that issues such as access to external financing are hindered by high costs of borrowing (Harvie, 2005; Leopairote, 1997). Practically, low-interest rates are good for the growth of MSMEs (SEDA, 2016) because they attract MSMEs to access loans/credits. The literature also shows that accessing and managing loans is a problem due to poor consultant services or lack of them.

d) Promotion of innovation and technology:

Evidence suggests that MSMEs that have access to technology and possess the ability to upgrade it tend to have better capacity in their acquisition of resources, and production and distribution of their products (Grimsholm & Poblete, 2010; Tambunan, 2008; SEDA, 2016; World Bank, 2009). The promotion of technology can take the form of facilitation of technological competitions, government subsidies, innovation hubs and trade fairs (Abor & Quartey, 2010; Grimsholm & Poblete, 2010).

e) Establishment of incubations, clustering and industrial parks:

The growth of MSMEs is promoted by the establishment of incubator systems for promoting the development of new entrepreneurs; cooperatives of MSMEs businesses; and industrial parks for micro and small-scale industries (Tambunan, 2008).

f) Pro-MSMEs Policy Approach:

Public policy and related practices have a significant influence on the performance of MSMEs and generally create a business and investment climate. Consequently, policy approaches, development, and implementation should be pro MSMEs as engines for job creation and for significant contribution in innovation and aggregate productivity of an economy (ILO, 2006; Muriithi, 2017; Tambunan, 2008).

Critical consideration should be given to monetary, fiscal and trade policies, aggregate demand, and any other policies related to business performance (ILO, 2006; Muriithi, 2017). Institutional, regulatory and administrative policies on import and export should make it efficient and effective for enterprises to survive and grow (EBRD et al., 2016). For example, export and import policies should enable MSMEs to competitively acquire/import raw materials and export their products. Thus, rules and regulations in an economy should not cripple performance and growth of the MSMEs.

As part of the special program on import and export, Indonesia has an Export Support Board for MSEs (Tambunan, 2008). One most recent and popular government support on SMEs growth in countries such as India, Ghana, and Rwanda has been the regulation that all supermarkets and hypermarkets should provide spaces for products produced locally by SMEs (Tambunan, 2008). The United States, and other OECD countries such as Australia, have also made comprehensive efforts to increase the “share” which small firms obtain government contracts under public procurement (OECD, 1997).

Generally, there is evidence of pro-MSMEs policy and economic development. The reviewed literature shows that when a government does give specific support and appropriate policies to the MSMEs sector the sector is susceptible to unfavorable conditions and poor business performance (Abor & Quartey, 2010; Muriithi, 2017; Tambunan, 2008).

In the proposed six measures, the role of government does not only emerge as vital in fostering enabling climate for growth of MSMEs but it is particularly more vital in developing countries considering that research shows that a lot needs to be done on business environment improvement in these countries (World Bank, 2017). Thus economic model orientation is the main driver of business environment sector reforms (EBRD et al., 2016), a scenario in which government institutions, become key agents of reform that play the significant role of stimulating environments that help MSMEs perform. In such an environment, Non-

Governmental Organizations, Development Finance Institutions and donor agencies tend to play significant roles in capital financing, facilitation and dissemination of new technology. The six measures are proposed based on the reviewed literature about determinants of MSMEs growth and reports on business sector reforms for MSMEs growth. The development of measures should be according to the actual needs of the MSMEs in an economy.

2.6. Conclusion

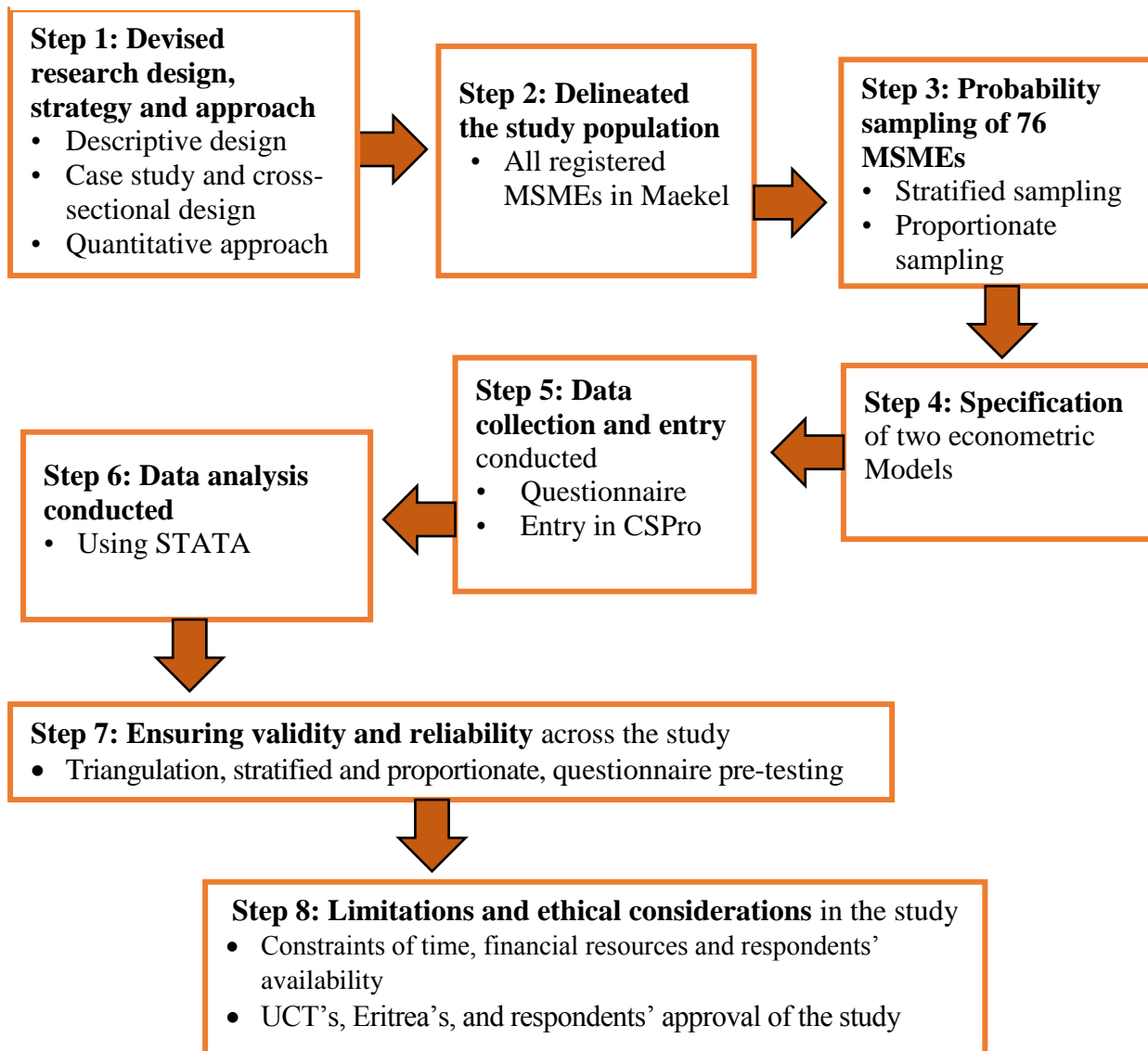
As outlined in Figure 1, this chapter has presented the reviewed literature related to the concepts of MSMEs, growth, youth and youth employment; key contributions of MSMEs to economic growth and development; and determinants of MSMEs growth and related measures to grow MSMEs. The four concepts looked at in this paper have no single or universally-accepted definitions, however, in practice, certain definitions are recommended in certain contexts. Importantly, the reviewed literature shows that a conditional relationship exists between the growth of MSMEs and creation of employment in that some growth may not result in job creation. Observations on the growth of MSMEs and employment creation point to the need for an impact investing approach. The review also shows that growth of MSMEs is a good strategy for promoting inclusive poverty alleviation. The determinants of firm growth are three-dimensioned; administrative, operational and exogenous and there is no clear indication of which factors are more influential in all contexts. The chapter has discussed enterprise growth and other key terms in the study, and empirical roles of MSMEs and the growth factors of MSMEs; and measures of growing MSMEs for employment creation. The review has cited experiences from emergency, crisis, fragile, developing and developed countries. The combination is meant to depict the varying effects of concepts and the various variables on the growth of MSMEs under different economic and political conditions.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents and discusses the econometric research methodology used in this study. As shown in Figure 3, the methodology covers research design and method, population of study and sampling, data collection and entry, data analysis and reporting, validity, reliability and ethics, and limitations. The choice of the pursued research methods is primarily informed by the three research questions of this study and the reviewed literature.

Figure 3: Overview of the research methodology



3.2. Research strategy, design and approach

The study used a descriptive research strategy due to the research purpose which was to establish the connection between MSMEs growth and youth employment using the case of Eritrea (Kumar, 2011; Neumann, 1994). The descriptive research strategy helps to describe a situation or a phenomenon (Neumann, 1994). In this case, it helped to systematically describe the nature of relationship between enterprise growth and a selected set of determinants; and the influence of enterprise growth on youth employment. The study used cross-sectional research design to determine the prominent growth constraints for MSMEs and impact of the MSMEs growth on youth employment (Brijlal et al., 2013; Kumar, 2005; Sitharam & Hoque, 2016).

The research used Asmara in Maekel region as a case study design. The researcher had limited financial resources, and time, particularly only three months to conduct the study, therefore, the use of case study design enabled him to better address the research objectives within the time and financial resource constraints (Coffey & Atkinson, 1996) while minimizing bias and maximizing the reliability of the collected and analyzed data (Kothari, 1988; Yin, 1994). The purposive selection of Asmara city as a focus of the study was due to its concentration of MSMEs and easy access by the researcher. There is the highest concentration of businesses in Asmara than any other place in Eritrea. It is the propelling hub of the private sector but mining. It was assumed, therefore, that factors that influence the growth of businesses in this region were likely to be similar with those for other regions, especially the external factors.

The research utilized quantitative research approach. The approach involves generation of data in quantitative form and use of quantitative analysis (Bryaman & Teevan, 2005; Kothari, 2004; Kumar, 2011; Yin, 2009). It then allowed for econometric analysis in the examination of the influence of internal and external factors that affect growth of MSMEs as well as linkages of enterprise growth and youth employment (Denzin & Lincoln 2003; Kumar, 2011).

3.3. Population, Sampling and Sample Size

3.3.1. Population of study

The population of study comprised of all the MSMEs in Maekel region registered with the MoTI in Eritrea. The MSMEs are a heterogeneous population. Consequently, the study used cluster and stratification approaches in studying the MSMEs for a representative investigation and strategic targeting of subsequent recommendations (Kothari, 2004). The total number of registered MSMEs as of 2017 was about 12,500. Table 3 presents a snapshot view of the population of study.

Table 3: Stratified population of MSMEs in Maekel region and respective sample sizes

Enterprise category	Enterprise economic activity area	Total number of enterprises	Selected sample size
1	Transport	1044	6
2	Accommodation and food	1036	6
3	Wholesale and retail, repairs of personal and household goods	7531	46
4	Manufacturing	1085	7
5	Real estate	105	1
7	Administrative and support services	378	2
8	Arts, entertainment and recreation	213	1
9	Professional, education, scientific and technical activities	381	2
10	Information and communication	114	1
11	Hairdressing	589	4
		12476	76

3.3.2. Sampling technique

Due to heterogeneity of the MSMEs, the research used stratified sampling to obtain a representative sample of 76 enterprises (Kothari, 2004). The research selected the 76 sample enterprises from the total population of the registered enterprises in Maekel region (Ndege, 2015; Neumann, 1994). The stratification involved division of the MSMEs into sub-populations in terms of the recognized economic sectors in Eritrea. The size of the sample to be drawn from each stratum was determined using proportionate sampling. The use of stratified and proportionate sampling techniques assisted to reduce probability of sampling error and ensure high precision of the samples to better represent the population of MSMEs (Leacock, Warrison & Rose, 2009; Kothari, 2004; Ndege, 2015). Thus, the stratified sampling technique ensured more reliable and representative information for inferences.

3.3.3. Sample size

The study used 76 enterprises as a sample drawn from 10 strata of the MSMEs sector, with sector representation presented in Table 3. The selection of the samples was done using proportionate technique. The selection of this sample size was deemed appropriate at a 90% confidence level and 9% margin error using the formula provided by Krejcie and Morgan (1970) and cross-checked against online formula by Creative Research Systems (<https://www.surveysystem.com/sscalc.htm>).

3.4. Model Specification

A first econometric model is specified in reflection of the empirical literature on the determinants of business growth while considering the political economy of Eritrea. The model specification is adjusted based on the actual sample size engaged in the study.

The general model specification of the ordinal logistic regression in the examination of factors that influence enterprise growth is as follows:

$$\ln \{EnterGro\} = B_0 + \beta_1 Sector + \beta_2 EduOoM + \beta_3 Taxes + \beta_4 AccRaM + \beta_5 BankReg + \beta_6 GenBusReg + \beta_7 AccTech + \beta_8 Corrup + \beta_9 ContraE + \beta_{10} ExchR + \epsilon_i \dots \quad (\text{Model 1})$$

Where EnterGro is MSMEs growth, B_0 is the model's constant; B_i are the coefficients of determination of the selected independent variables, with $i = 1$ to 10; and ϵ is Error variable

A second regression model was established to investigate the relationship between the growth of enterprise and youth employment. Below is the estimated model:

$$\ln \{Youth Employment\} = B_0 + \beta_1 EnterGrowth + \epsilon \dots \quad (\text{Model 2})$$

where B_0 is the model's constant; B_1 is the coefficient of MSMEs growth; and ϵ is Error variable

3.4.1. Data description for the MSMEs growth model in Eritrea

This is the summary of variables used in the specified multiple regression model. Learning from the reviewed literature, Table 4 is the operationalization framework to pinpoint the factors that influence the growth of MSMEs in Eritrea, represented in Model 1. The actual predictor variables used in the study deviate from those expected at research proposal stage due to lessons drawn in the detailed literature review. Due to the sample size actualized in this study, the number of variables for Model 1 was limited to seven (Neumann, 1994; Keller, 2012). Table 5 gives the variable specification for Model 2.

Table 4: Determinants of growth of MSMEs (Model 1)

Dependent variable (DV)			
Variable	Variable notation	Description	
Enterprise growth (MSMEs growth)	EnterGro	Changes in business sales in 12 months	
Independent variables (IV)			
Variable category	Variable	Variable notation in the model	A priori relationship of the IV and the DV
Administrative	Education of owner/manager	EduOoM	Positive relationship
	Sector of a business	Sector	Positive relationship
Exogenous	Taxes	Taxes	Negative relationship
	Access to raw materials	AccRaM	Positive relationship
	Banking regulation	BankReg	Positive relationship
	General business regulation	GenBusReg	Positive relationship
	Access to technology	AccTech	Positive relationship

Table 5: Variable specification for Model 2

Dependent variable		
<i>Variable</i>	<i>Variable notation</i>	<i>Description</i>
Youth Employment	YouthEmp	The total number of young persons who work in or for an enterprise
Independent variables		
<i>Variable</i>	<i>Variable notation in the model</i>	<i>A priori relationship of the IV and DV</i>
Enterprise growth (MSMEs growth)	EnterGro	Positive relationship

3.5. Choice of data, data collection and entry

The research used primary cross-sectional data. The primary data was collected to in line with the research questions to address the research aims. The study used questionnaires to collect primary data from 76 responders in their capacity as enterprise owners or managers.

The questionnaire generated first-hand information from the MSMEs. To ensure good precision and absence of bias, the questionnaire was subjected to three review levels; review against literature, peer review, and pilot with selected 12 enterprises (Brijlal et al., 2013; Creswell 2003; Kothari, 2004; Ndege, 2015; Yin 1994). At each level, the questionnaire was appropriately

adjusted for refinement. Each of the used questionnaires had three sections, namely administrative variables, operational variables, and exogenous variables and matters on business improvement measures. A copy of the questionnaire is available in Annex III.

The data collection was facilitated by four research assistants. The research assistants had undergone a two-day training regarding how to administer the questionnaire (Merriam, 1998). The data collection was planned for two weeks but, in actual, it extended to seven weeks. The extension was due to hard to catch of the respondents. The collected data were coded and entered in CSPro and, in turn, exported to STATA for statistical analysis.

In the secondary data collection, content analysis technique was used to interrogate purposively selected journals, reports, the public of research institutions and Government Ministries and Departments, and newspaper sources (print and online). The data were coded and entered in excel for pattern building and thematic analysis.

3.6. Analysis of data and reporting of results

Quantitative analysis techniques were used to analyse the collected primary and secondary data. The reporting of results has been presented in Chapter 4. The results have been presented in form of figures, tables and charts.

The following statistical analysis techniques were applied using STATA software:

i) Descriptive statistical analysis

Descriptive analysis was conducted to give an overview and a comparison of some predictive variables under study (Field, 2009; Keller, 2012). The variables considered were age of owner, age of enterprise, gender, education levels, meaning of business growth, MSMEs categories and business growth status. A comparison was run between the variables and the sectors under study, namely gender and age of owner and presented in distribution tables and charts.

ii) Correlation analysis

Correlation analysis was done to verify the relationship between two of each of the independent variables under examination (Field, 2009; Keller, 2012; Ndege, 2015). The correlation analysis results have been presented as correlation matrix in Chapter 4. The correlation analysis helped to check potential existence of multicollinearity. Using Pearson's correlation, each pair of independent variables with a correlation coefficient exceeding 0.90 indicates presence of serious collinearity problem (Hair, Black, Babin, Anderson & Tatham,

2006). It is sufficient to drop one of any two highly correlated variables to improve the model's fitness. In this study, there is no correlation coefficient value that exceeds 0.60, hence the assumption that there is no multicollinearity problem. Similarly, due to low colleration, factor analysis was not conducted as initially projected in the study design (Rencher, 2002).

iii) Chi-square test

Chi-square test was used as a test of independence. It tested significance of association between each of independent variables against the dependent variable under study (Kothari, 2004). For example, the chi-square tested if enterprise growth and youth employment are independent at 0.05 significance level. The use of the chi-square test required no assumptions since in this case it was used as a non-parametric test (Kothari, 2004).

iv) Logistic regression analysis

The study used logistic regression analysis because the dependent variables for the econometric models, presented section 3.3, in this study are categorical (Tranmer & Elliot, n.d.). The study used ordinal logistic regression to examine the influence of the seven independent factors on enterprise growth. In this case, enterprise growth was considered for three possible outcomes (categories) in order of magnitude, 1) decreased growth, 2) constant growth, and 3) increased growth. Consequently, a choice of ordinal logistic regression was due to this polychotomous nature of the dependent variable, Enterprise growth.

Binary logistic regression was used to examine the influence of MSMEs growth on Youth employment. The use of binary logistic regression is informed by the outcome probabilities of the dependent variable, youth employment (Tranmer & Elliot, n.d.). Youth employment was measured on dichotomy of i) enterprise employed youth, and ii) enterprise did not employ youth.

3.7. Validity and reliability of the study results

The research methodology and the other sections of the study ensured validity and reliability of the study. The study used triangulation, pre-testing, and correct deployment of constructs and methodology (Brijlal, et al., 2013; Leacock et al., 2009; Neuman 1994).

3.8. Ethical considerations in the study

Limited ethical considerations were made in this research study. The study was approved by UCT and the MoTI, and a voluntary consent was acquired in all engagements with the 76 MSMEs.

3.9. Limitations of the research

The study's main limitations were as follows:

1. Time and financial constraints led to the use of a minimal sample size and the application of purposive sampling to select Asmara as a place of study, in the Maekel region (known as zoba in Eritrea). Eritrea has a total of six regions, but the study only covered the Maekel region because it required to be conducted within six months. The sample size limitation implied that only seven variables could be explored to check their effect on business growth using the regression analysis. Examining Maekel alone still gave a plausible indication of the situation national wide since business proclamations/laws, regulations and national policies and enforcement mechanisms are almost the same across the country
2. The primary data were largely estimations and annual averages as such they may reduce the predictive power of the results. This is due to the attitude of the respondents towards giving out business information, and literacy levels of some of the business owners. To minimize the possible effect of this limitation, the researcher used the consent acquisition introduction to help the respondents open-up and consider the research independent and of no implications in their businesses. In addition, it used cross-sectional data instead of time series data.
3. The last limitation was delayed commencement of fieldwork and reporting of field results due to a lengthy process of acquiring clearance to conduct the study, and due to sanctioned closure of some businesses during the data collection, a situation which led to sample redrawing. Furthermore, some businesses had moved to new locations and much time was spent on searching for them in their new locations.

3.10. Conclusion

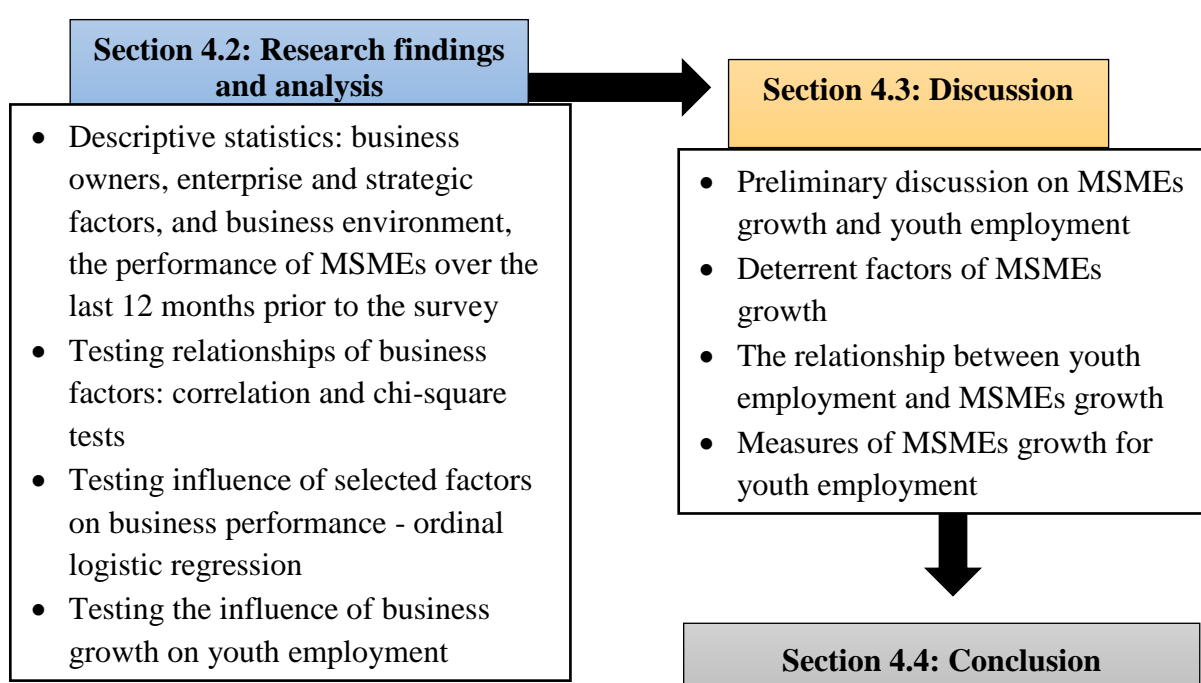
This chapter has explained how the research was designed and conducted to address the specific aims of the study regarding the determinants of growth of MSMEs and job creation using a case of Eritrea. Particularly, it has discussed the econometric methodology used by the study to address the research questions. The methodology has covered the research's design and approach, study population, sampling and sample size, choice of data, data collection and entry, data analysis and reporting, validity, reliability and ethics, and limitations of the study.

CHAPTER 4: FINDINGS, ANALYSIS AND DISCUSSION

4.1. Introduction

This chapter presents the findings of the study based on the statistical and qualitative analysis that was run on the collected data; an analysis of the findings in relation to the hypotheses of the study; and a discussion about their implications regarding the three objectives of the study. The study intended to determine the factors that deter growth of MSMEs, and to extract prominent factors for the growth of the enterprises; to explore the relationship between MSMEs growth and youth employment in Eritrea; and to recommend appropriate measures through which the MSMEs can grow for youth employment using a case study of Eritrea. Figure 4

Figure 4: An overview of the flow of Chapter 4



presents an overview of the chapter.

4.2. Research Findings and Analysis

This section contains four main sub-sections that address the study's specific aims in line with established research questions. The research findings are based on the conducted statistical analysis, and the first four sub-sections present descriptive statistical findings while the fifth sub-section presents findings on the relationships of selected variables that influence business growth. In turn, the sixth sub-section presents STATA output of an ordinal logistic regression on assessing the factors that influence business growth in Eritrea while the seventh one presents

STATA output of a binary logistic regression that tested the influence of enterprise growth on youth employment. The last sub-section presents results on challenges of MSMEs growth and proposed measures to grow MSMEs for youth employment in Eritrea. The findings provide the basis for the analysis and discussions of findings in section 4.5.

4.2.1. Descriptive statistics of Enterprise Owners: Gender, Education and Age

The statistical analysis gives frequency distributions on gender disaggregation, education and age of enterprise owners. The total number of observations for each of these statistics is 76. Figure 5 gives an overview on gender composition and Table 6 gives distribution on education level of the owners/ managers involved in this study.

Figure 5: Gender distribution chart of the owners of MSMEs

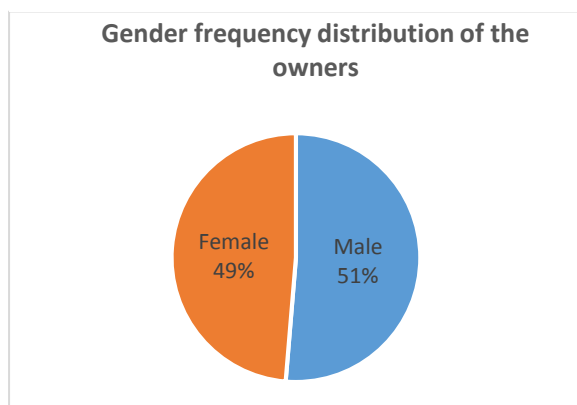


Table 6: Frequency distribution on the education level of owners/ managers

Education level of Owner	Percentage (%)
Elementary	32
Junior	17
Secondary	31
Diploma	8
Bachelors	12
Total	100

The mean age of the owners of the MSMEs is 56 years. The standard deviation of the ages from the mean is 14, with a minimum of 33 years and a maximum of 99.

4.2.2. Descriptive statistics of the MSMEs

The statistics presented about the enterprises include: year of establishment, legal registration status, source of business capital, networking, availability of business marketing strategy, and location of business and availability of skilled labour. The latter four factors are considered strategic factors of business performance.

Age of enterprise establishment and enterprise size

The mean average age of MSMEs engaged in the study have been established for about 18 years, with a standard deviation of 16 years. The minimum number of years in existence was one year. With regards to the composition of the MSMEs in this study, 66% were micro, 29% were small and 5% were medium.

Legal registration status and Business start-up capital

Most of the MSMEs were under sole proprietorship legal registration status. Also, most of the MSMEs acquired business capital from their families. Figure 6 gives the percentage frequency distribution of source of business start-up capital of the MSMEs and Figure 7 gives the percentage frequency distribution of legal registrations status of the MSMEs.

Figure 7: Legal registration status distribution

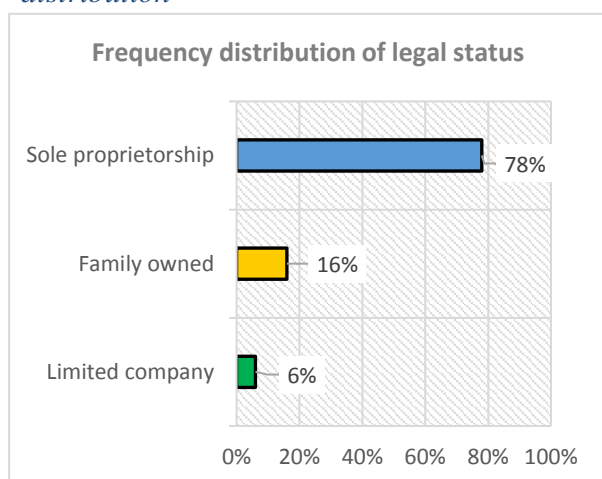
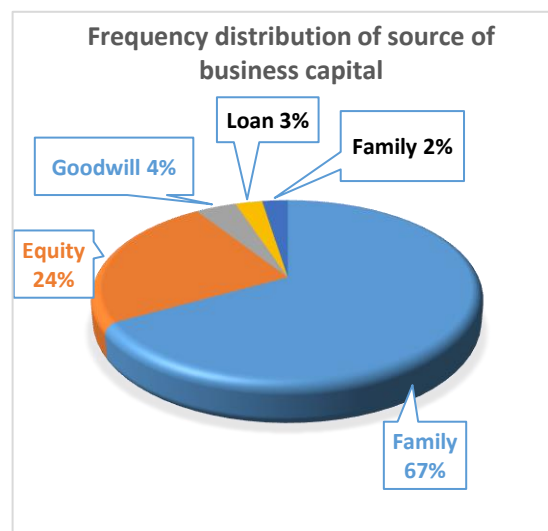


Figure 6: Business start-up capital source



Networking and marketing strategy

On networking, about 93% of the MSMEs reported not to belong to any association. Approximately 60% of the 7% of MSMEs that indicated as belonging to an association reported that the networking was supportive in their businesses.

Approximately 64% of all the MSMEs said they know about business marketing strategy (BMS). However, only 62% of the MSMEs indicated to have a BMS.

Location of business and skilled labour

Table 7 summarizes the respondents' views on influence of location and availability of skilled labour to business performance.

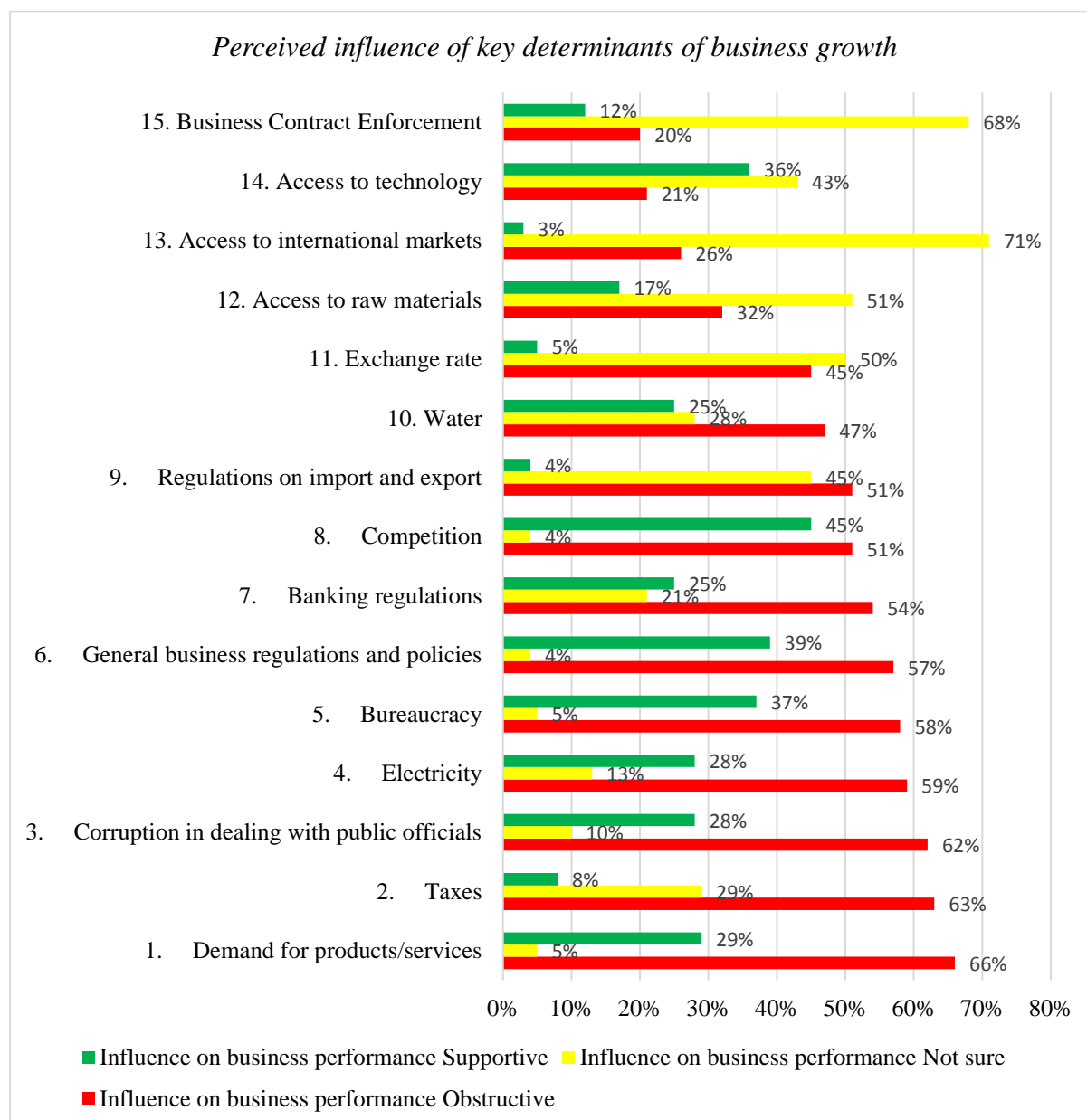
Table 7: Distribution of perceived influence of location and skilled labour on business growth

Enterprise strategic factor	Influence on business performance			Total
	Obstructive	Not sure	Supportive	
1. Location of business	35%	7%	58%	100%
2. Skilled labour availability	8%	20%	72%	100%

4.2.3. Descriptive statistics of the business environment factors for the MSMEs

The study collected information from the MSMEs on their perceptions in relation to the influence of business environment factors to their business growth. Figure 8 presents the list of business environment factors that were considered and their respective ratings of influence.

Figure 8: Distribution of perceived influence of key determinants of business growth



4.2.4. Descriptive statistics on business performance of the MSMEs

The MSMEs provided information in relation to performance of their businesses in the 12 months pre-survey time.

Enterprise growth and youth employment

MSMEs were asked to categorise the type of growth of their businesses and indicate if they employed youths over the 12-month period pre-survey period. Figure 9 shows the frequency distributions of growth outcome of enterprises, namely decreased, constant and increased. Of all the 76 MSMEs, only 45% employed young people; and Figure 10 presents youth employment trends among the MSMEs that employed youths.

Figure 9: Enterprise growth distributions

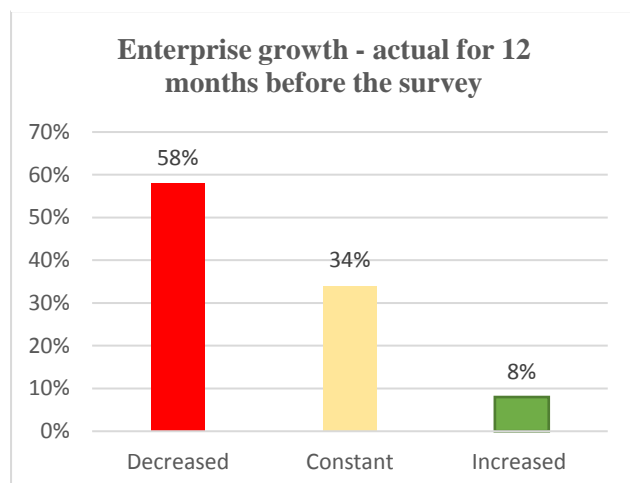
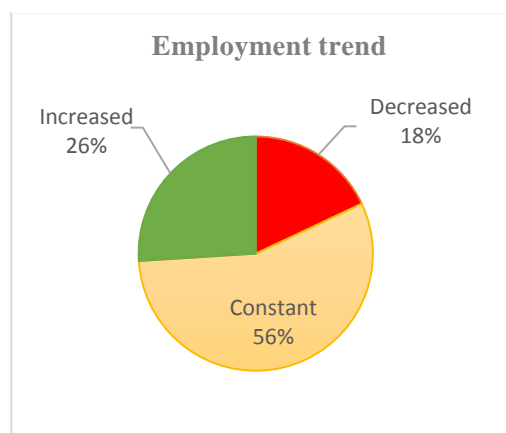


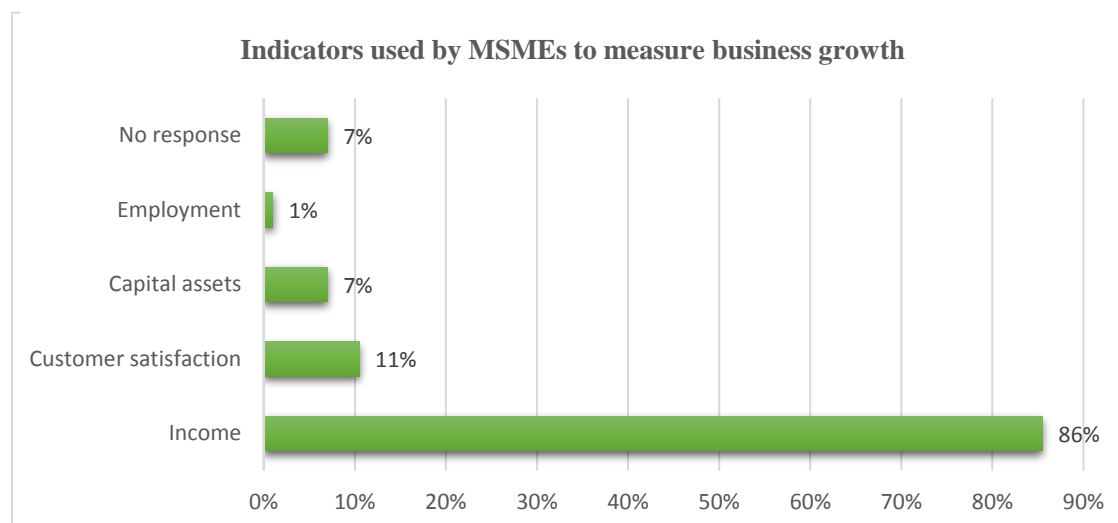
Figure 10: Employment trend among MSMEs that employed youths



Perceptions regarding measuring business growth

The study asked respondents about the indicators they use to measure the performance of their businesses. Figure 11 gives the summary of the results.

Figure 11: MSMEs business performance indicators



4.2.5. Variables tests for relationships: correlation and chi-square

As part of checking the required assumptions for ordinal logistic regression, chi-square and Spearman's correlation tests were run using STATA. The chi-square and correlation tests depict the extent of the relationship between the variables and between each of the predictor variables and enterprise growth. The seven predictor variables under the study to influence Enterprise growth are sector (represented as Sector), education of owner or manager (represented as EduOoM), access to raw materials (represented as AccRam), general business regulations and policies (represented as GenBusReg), banking regulations (represented as BankReg), taxes (represented as Taxes) and access to technology (represented as AccTech). Other interesting variables checked are corruption (represented as Corrup), contract enforcement (represented as ContraE), and exchange rate (represented as ExchR).

Relationship between dependent and predictor variables for regression: chi-square test and Spearman correlation tests

Chi-square tests of association were run for selected priority predictor variables with enterprise growth. Spearman correlation tests found that there is no statically significant relationship between enterprise growth and the following variables, $p > .1$: access to loan, infrastructure (measured by access to electricity), networking of an enterprise, age of owner, and age of an enterprise. Table 8 summarizes the likely relationships between enterprise growth and each of the probable eleven predictors of enterprise growth. Table 9 gives chi-square results on youth employment and MSMEs growth.

Table 8: Chi-square test results of the dependent variable and proposed determinants

Dependent variable		Predictor variables				
	Chi-square	Sector	EduOoM	Taxes	AccRam	BankReg
Enterprise growth	Likelihood ratio	chi2(8)= 25	chi2(10)= 24	chi2(4)= 18	chi2(4)= 6	chi2(4)= 17
	Pr =	0.002	0.009	0.001	0.220	0.002
Dependent variable		Predictor variables				
	Chi-square	GenBusReg	AccTech	Corruption	ContraE	ExchR
Enterprise growth	Likelihood ratio	chi2(4)= 8	chi2(4)= 22	Chi2(4)= 13	Chi(4)= 11	Chi2(4)= 14
	Pr =	0.089	0.000	0.012	0.032	0.009
Competition and enterprise growth chi-square test gave: $\chi^2(4) = 10$ and $p = 0.034$. Enterprise size and enterprise growth chi-square test gave: $\chi^2(4) = 8.69$ and $p = 0.069$						

Table 9: Chi-square tests on youth employment and enterprise growth

Dependent variable		Predictor variable
	Chi-square	Enterprise growth
Youth employment	Likelihood ratio	chi2(2)= 3.9381
	Pr =	0.140

Testing relationship between predictor variables: correlation test

To further corroborate the degree of association between the predictor variables with business growth and to analyse the level of correlations between each of the predictor variables, Spearman correlation test was run among the variables. Figure 12 contains results of a Spearman correlation test for main variables considered to be applicable to explain enterprise growth in Eritrea. It shows that there is a modest degree of linear relationship between BankReg and Taxes, between GenBUsReg and Taxes and GenBusReg and BankReg and between Compet and GenBusReg. Figure 13 presents results of correlation test between youth employment and enterprise growth.

Figure 12: Correlation matrix for selected independent variables for regression

```
. spearman EnterGro AccRam BankReg GenBusReg AccTech Taxes Sector EduOoM Compet ContraE ExchR Corrup, stats(rho) ma
> x
(obs=76)
```

	EnterGro	AccRam	BankReg	GenBus~o	AccTech	Taxes	Sector	EduOoM	Compet	ContraE	ExchR
EnterGro	1.0000										
AccRam	0.0723	1.0000									
BankReg	-0.3566	-0.0339	1.0000								
GenBusRegPo	-0.3213	-0.0008	0.5718	1.0000							
AccTech	-0.3207	0.1841	0.3082	0.3782	1.0000						
Taxes	-0.4853	0.0373	0.5266	0.5050	0.2380	1.0000					
Sector	-0.2435	-0.0867	0.0881	0.1039	0.0581	0.0464	1.0000				
EduOoM	-0.1928	-0.2289	0.0819	0.0770	-0.1545	0.2109	0.1688	1.0000			
Compet	-0.2963	-0.1428	0.4687	0.5731	0.4151	0.5126	-0.1388	0.0841	1.0000		
ContraE	-0.1419	0.1029	0.3070	0.3186	0.2345	0.2679	-0.1463	0.0274	0.3152	1.0000	
ExchR	-0.4101	-0.1408	0.4258	0.3083	0.2465	0.3625	0.0584	0.2198	0.4577	0.1994	1.0000
Corrup	-0.3916	-0.1518	0.3535	0.2049	0.2001	0.4281	0.2158	0.2238	0.3248	0.3203	0.3883
		Corrup									
Corrup	1.0000										

Figure 13: Correlation results for youth employment and enterprise growth

```
. spearman YouthEmploy EnterGro
```

Number of obs =	76
Spearman's rho =	0.1324
Test of Ho: YouthEmploy and EnterGro are independent	
Prob > t =	0.2544

4.2.6. Examining factors that influence business growth

The Chi-square test shows that there is a significant relationship between each of the predictor variables and MSMEs growth, except for general business regulation and access to raw materials (Table 8). General business regulation and MSMEs growth have a marginally significant relationship. However, there is no significant relationship between access to raw materials and MSMEs growth. The Spearman correlation tests that were conducted also confirmed that it is not essential to consider access to loan, networking, age of owner, and age of enterprise in the regression (Figure 12). Based on the preliminary analysis above of the relationship of business growth and the other variables, the study sought to establish the influence of sector, education, taxes, access to raw materials, banking regulations, general business regulations and policies, and access to technology as predictors on Growth of MSMEs. While they are not highly significantly related to the study's dependent variable as measured by chi square, access to raw materials and general business regulations, are included in the regression model due to their regarded influence in the context of Eritrean economy.

4.2.6.1. Ordinal logistic regression: testing the influence of the business factors on enterprise growth

MSMEs growth (EnterGro) is measured on three categories, namely decreased, constant or increased over the 12 months prior to the survey. Using STATA, an ordinal logistic regression (OLR) with odds ratio was run. The used predictors of enterprise growth were sector, education of owner, general business regulation, banking regulation, access to raw materials, taxes and access to technology. The last five of the afore-mentioned seven predictor variables, used obstructive category as their reference category in the regression. In contrast, the predictor variable sector used wholesale and retail as its reference category, and elementary education as its reference category in the regression. In line with the econometric Model 1, the output of the ordinal logistic regression with odds ratios is presented in Figure 14.

Figure 14: OLR, with odds ratio, on factors that influence enterprise growth (Model 1)

Iteration 0: log likelihood = -67.170323						
Iteration 1: log likelihood = -42.175918						
Iteration 2: log likelihood = -36.542489						
Iteration 3: log likelihood = -36.061374						
Iteration 4: log likelihood = -36.056218						
Iteration 5: log likelihood = -36.056214						
Ordered logistic regression						
			Number of obs	=	76	
			LR chi2(19)	=	62.23	
			Prob > chi2	=	0.0000	
Log likelihood = -36.056214			Pseudo R2	=	0.4632	
EnterGro	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
Sector						
Transport	7.636367	7.718198	2.01	0.044	1.053329	55.36174
Accommodation&Food	6.527432	8.854828	1.38	0.167	.45713	93.20625
Manufacturing	5.065919	7.125429	1.15	0.249	.3216676	79.78278
Admin&SupportServ	4.208942	4.900129	1.23	0.217	.4297224	41.22472
EduOoM						
Adult-edu	.0821919	.1084816	-1.89	0.058	.0061854	1.092179
Junior	9.063404	9.521312	2.10	0.036	1.156338	71.03918
Secondary	.7754163	.9127433	-0.22	0.829	.0771942	7.789061
Diploma	.1422152	.2606808	-1.06	0.287	.0039146	5.166551
Bachelors	.3212338	.5047545	-0.72	0.470	.0147682	6.987372
AccRam						
Not sure	5.632295	6.005491	1.62	0.105	.69676	45.52895
Supportive	19.13224	28.2513	2.00	0.046	1.058896	345.6833
GenBusRegPo						
Not sure	108.9895	242.521	2.11	0.035	1.390946	8540.024
Supportive	8.22747	8.932249	1.94	0.052	.979827	69.08491
BankReg						
Not sure	.2327433	.2711154	-1.25	0.211	.0237322	2.282524
Supportive	14.8522	20.91611	1.92	0.055	.9398478	234.7058
Taxes						
Not sure	.9846042	1.824199	-0.01	0.993	.0260748	37.17941
Supportive	.0030091	.0057169	-3.06	0.002	.0000727	.1246242
AccTech						
Not sure	1.357834	1.641034	0.25	0.800	.1270903	14.50711
Supportive	.006107	.0106098	-2.93	0.003	.0002028	.1839207
/cut1	1.236567	1.566658			-1.834027	4.30716
/cut2	5.403316	1.89139			1.696259	9.110372

4.2.6.2. Predictive probabilities for the ordered logit regression on enterprise growth

The study generated the predictive probabilities, using STATA, to evaluate how enterprise growth is related with the seven predictor variables. Table 10 presents a summary of the predictive probabilities for the seven predictor variables under Model 1.

Table 10: Summary of predictive probabilities of the seven variables (Model 1)

Pr (Enterprise Growth ==1, 2, 3), predict (outcome (1), outcome (2), outcome (3))

Probabilities drawn from ordinal regression outputs, presented in Annex I.

Predictor Variable		Pr (Outcome 1 = Decreased business growth)	Pr (Outcome 2 = Constant business growth)	Pr (Outcome 3 = Increased business growth)
Access to raw material	Obstructive	0.7111312	0.2617838	0.027085
	Not sure	0.5369072	0.3698912	0.0932016
	Supportive	0.4257561	0.3956184	0.1786255
General Business Regulation and Policy	Obstructive	0.6477276	0.2871559	0.0651165
	Not sure	0.2970891	0.304866	0.3980449
	Supportive	0.4710682	0.3421082	0.1868236
Banking Regulation	Obstructive	0.6112065	0.3075627	0.0812308
	Not sure	0.7481779	0.2167299	0.0350922
	Supportive	0.3661665	0.3829203	0.2509132
Taxes	Obstructive	0.4309334	0.4358423	0.1332242
	Not sure	0.4327947	0.4350271	0.1321781
	Supportive	0.9497781	0.0488594	0.0013624
Access to technology	Obstructive	0.4307663	0.4460347	0.123199
	Not sure	0.3918343	0.4640573	0.1441084
	Supportive	0.9280293	0.0699309	0.0020398
Sector	Transport	0.4512477	0.4147344	0.1340179
	Accommodation & Food	0.4670082	0.4094963	0.1234955
	Wholesale & Retail	0.6685824	0.2936291	0.0377885
	Manufacturing	0.4930515	0.3992309	0.1077176
	Administration & support serv	0.5124883	0.3904166	0.0970951
Education	Adult-edu	0.8166005	0.1767632	0.0066364
	Elementary	0.5433187	0.3942225	0.0624588
	Junior	0.3378622	0.4252451	0.2368927
	Secondary	0.5715706	0.377366	0.0510634
	Diploma	0.7618417	0.2269145	0.0112439
	Bachelors	0.672184	0.3038528	0.0239632

4.2.7. Examining the influence of enterprise growth on youth employment

The study also intended to establish the extent to which business growth could explain youth employment using Eritrea as an example. A chi-square test of association, presented in Table 10, shows the non-statistically significant relationship between youth employment and business growth.

4.2.7.1. Binary logistic regression

A binary logistic regression with odds ratio was run in STATA and its output is presented in Figure 15. Youth employment is measured as 1 if the business employed youth, and 0 if the business did not employ youth in the 12 months prior to the survey. Youth employment was regressed on enterprise growth measured as decreased, remained constant or increased in the 12 months prior to the survey, and in the sector. While sector was introduced as a control variable, enterprise growth is an ordinal variable, and in the regression output the response category ‘decreased’ served as a reference category.

Figure 15: Odds ratio output for the binary logistic regression (Model 2.2)

Logistic regression		Number of obs		=	76	
		LR chi2(6)		=	11.71	
		Prob > chi2		=	0.0688	
Log likelihood = -46.402713		Pseudo R2		=	0.1120	
YouthEmploy	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
EnterGro						
Constant	1.425531	.8667905	0.58	0.560	.4329184	4.694048
Increased	5.34905	6.474756	1.39	0.166	.4988156	57.36055
Sector						
Accommodation&Food	2.358162	2.552793	0.79	0.428	.2825648	19.68019
Wholesale&Retail	.7440338	.6311907	-0.35	0.727	.1410872	3.923717
Manufacturing	3.625076	4.465174	1.05	0.296	.3242295	40.53047
Admin&SupportServ	3.646439	3.758994	1.26	0.209	.4834964	27.50076
_cons	.4868385	.4382193	-0.80	0.424	.0834047	2.841708

Note: _cons estimates baseline odds.

4.2.7.2. Predictive probabilities

Table 11 presents the associated predictive probabilities of the predictor variables in the regression output presented in Figure 15.

Table 11: Predictive margins table for youth employment

Predictor Variable (Categorical)		Pr (Outcome 1 = Yes)	Pr (Outcome 2 = No)
Enterprise growth	Decreased	0.3961614	0.6038386
	Constant	0.4734237	0.5265763
	Increased	0.7499573	0.2500427
Sector	Transport	0.3867631	0.6132369
	Accommodation & food	0.5896676	0.4103324
	Wholesale & retail	0.3225141	0.6774859
	Manufacturing	0.6857361	0.3142639
	Admin & Support services	0.6869695	0.3130305

4.2.8. Measures to be taken to facilitate the growth of MSMEs for employment creation

In investigating the measures that should be taken to facilitate the growth of MSMEs, the research posed semi-structured questions to respondents. The questions intended to get perceptions regarding the main challenges and probable solutions relating to boosting business growth. The total number of respondents was 76.

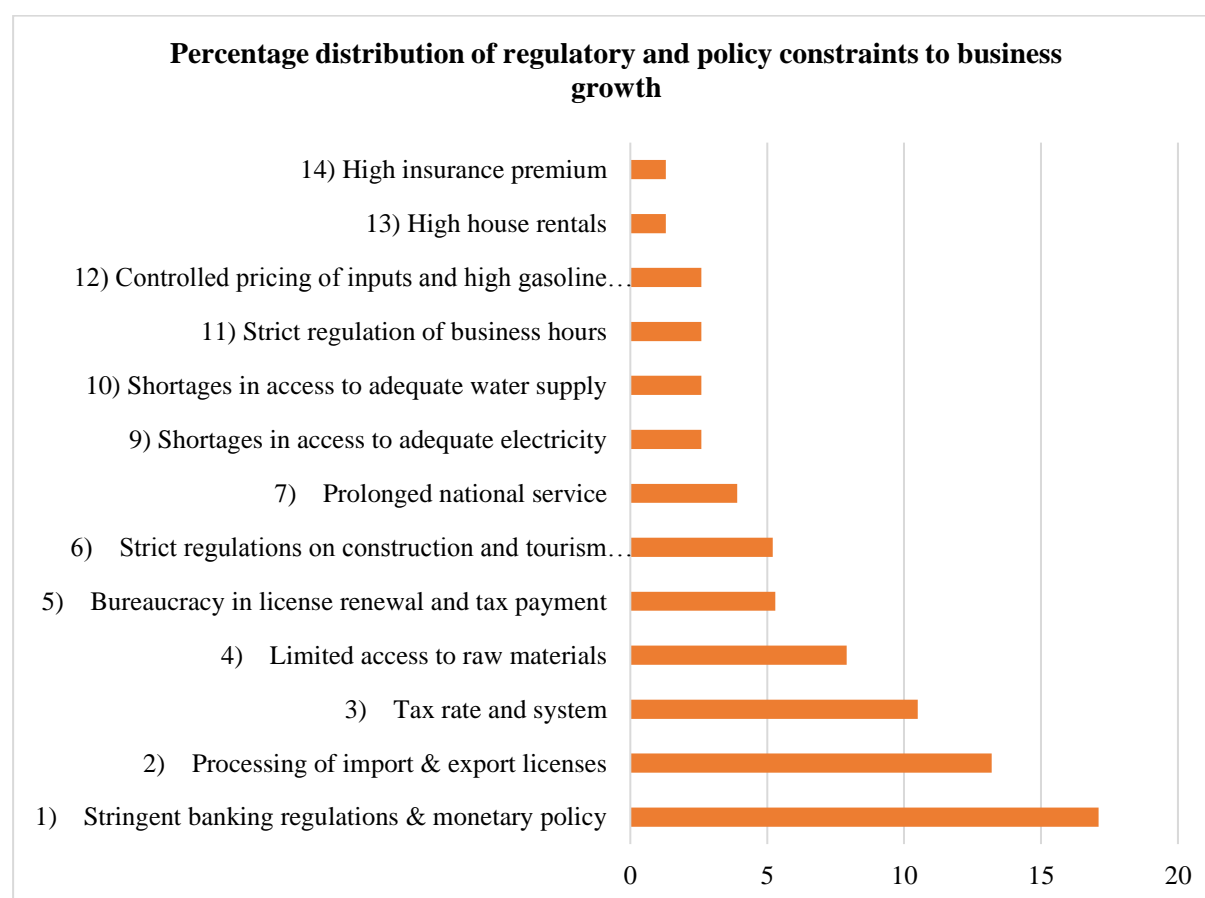
Perceptions regarding business growth and relation to youth employment

The question sought to find out the perception of the businesses on the nature of the relationship between their business growth and creation of youth employment. Out of the 76 respondents, 80% had perceived a positive relationship, 17% perceived none and 3% perceived a negative one.

Perceptions regarding regulatory and policy factors that affected business performance

The study asked businesses to cite existing regulations and policies that affected business performance of the MSMEs in the 12 months pre-survey period. Percentage frequencies of the regulatory and policy issues are presented in Figure 16.

Figure 16: Frequency distribution of regulatory and policy constraints to business growth



Perceptions of factors that affected the demand of products and services of the MSMEs

Table 12 summarizes the factors that businesses perceived as affecting the demand of products and services of the MSMEs in the 12 months before the survey period.

Table 12: Issues affecting the demand of products and services

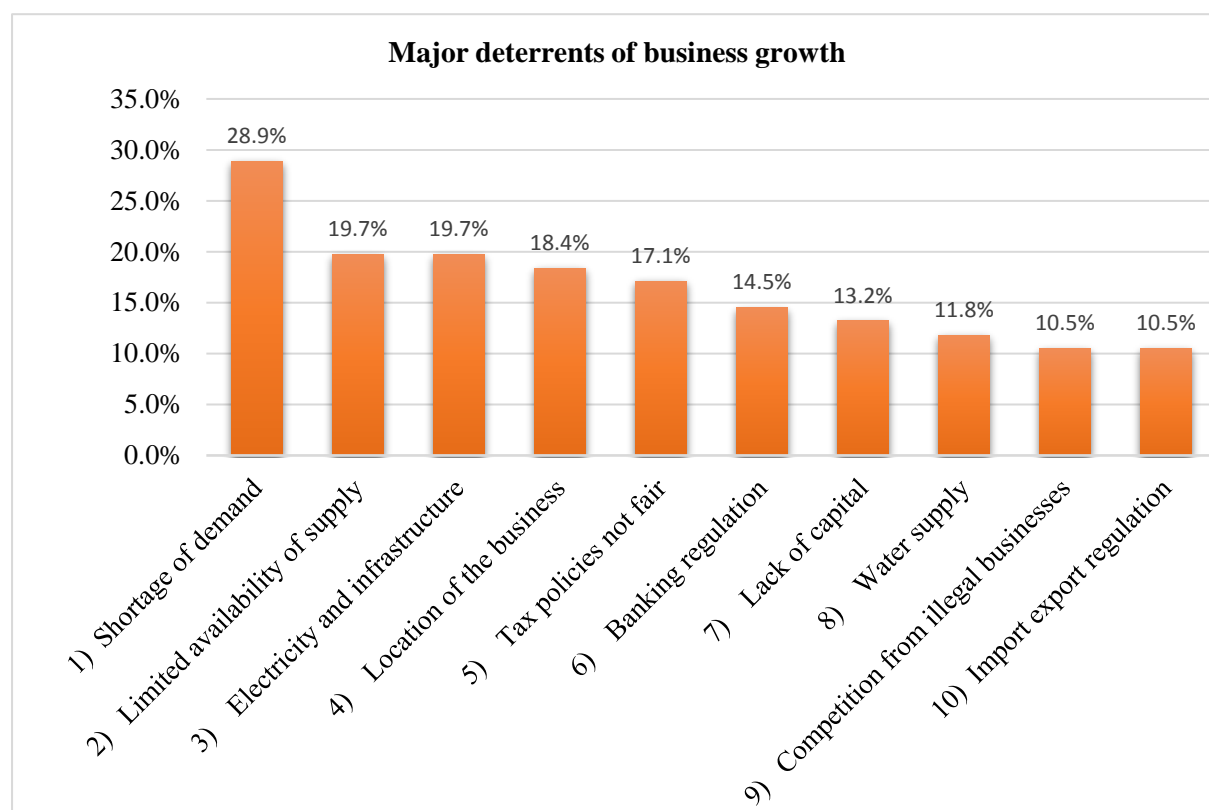
Issues negatively affecting business demand	Percentage	Issues positively affecting business demand	Percentage
1) Limited income of customers	30%	1) Customer satisfaction	8%
2) High and unfair competition	13%	2) Nature of business has customers always	4%
3) Decrease in customer base	12%	3) Application of fair prices	1%
4) No permit	8%		
5) Non-supportive government policies	4%		
6) Slowdown of economic activity	3%		

Total does not equal to 100% due to multiple answers per respondent

Perceptions regarding major deterrents of business growth

The research sought to find out from the MSMEs what they considered as major factors deterring the growth of their businesses. Figure 17 gives a summary of the perceived major deterrents.

Figure 17: Frequency distribution on major deterrents of MSMEs growth



Perceived constraints for the business sector

In another open question, focused on perceived constraints of the business sector in general, the MSMEs identified the following as the main five specific barriers to performance of a business in Eritrea: barred import of materials (29%), restrictive banking policy (29%), unfair tax system (16%) and bureaucracy (16%) and scarcity of raw materials (8%).

Perceptions regarding strategies and practices to improve business growth

The research also sought to establish perceptions of the MSMEs concerning what could be done to improve the performance (growth) of their businesses. Table 13 displays the frequency distributions of strategies and practices perceived as probable to improve business growth.

Table 13: Frequency distribution of the suggested actions to improve business growth

Recommendations to improve business performance	Percentage
1) Open licensing for import and export	36.8
2) Reduce tax	30.3
3) Banking system less restrictive	21.1
4) Expanded availability of raw materials	19.7
5) Good business environment	17.1
6) Technology	13.2
7) Allow only licenses businesses	13.2
8) International partnerships	10.5
9) Reduce bureaucracy	10.5
10) Economic empowerment of people	9.2
11) Improve access to electricity	9.2
12) Easier loan system	7.9
13) Enough water supply	6.6
14) Skilled labour	6.6
15) Better rules on commodity pricing	5.3
16) More space	2.6
17) More tourism/open construction industry	2.6
18) Reduce house rent	1.3

Total does not equal to 100% due to multiple answers

4.3. Discussion of the Findings

The subsequent discussion of the research findings, presented in section 4.2, intends to provide answers to the set of research questions of the study using the case of Eritrea. The following were the research questions:

- 1) What are the prominent factors that deter the growth of MSMEs?
- 2) What is the relationship between MSMEs growth and youth unemployment?
- 3) What measures should be taken to facilitate the growth of MSMEs?

The first sub-section, 4.3.1, is a preliminary analysis of the situation regarding MSMEs growth and youth employment, preceding the discussions that answer the three research questions.

4.3.1. Overview of MSMEs growth and youth employment

The MSMEs ownership by gender is almost balanced, with 49% owned by females. The findings show that most MSMEs experienced a decline in growth rather than an increase in growth. About 58% of the MSMEs experienced a decrease in their business performance, with only 8% registering an increase in business growth (Figure 9). This result is similar to the findings of related assessments of SMEs growth in Eritrea (NUEYS, 2016; MoTI, 2015).

About 45% of the businesses in the study reported having employed young people during the 12 months prior to the survey. Among the MSMEs that employed young people, 56% reported that their youth employment trend had remained constant over the 12 months period before the survey, and 26% said that their trend of youth employment had increased while the remaining 18% had registered decrease. Generally, there has been job loss in the MSMEs sector.

Enterprise size, enterprise growth, and youth employment trend

Micro-enterprises experienced the highest decrease in enterprise growth. Small enterprises registered the highest frequency regarding the increase in growth. In contrast, medium enterprises did not register an increase in business growth. A Spearman correlation test, with all 76 samples, suggests that there is no statistically significant relationship between enterprise growth and enterprise size ($r_s = -0.0814$, $p = 0.4848$).

Using a Spearman correlation test, with 34 samples, the study finds a statistically significant negative relationship between the size of an enterprise and youth employment trend ($r_s = -0.4622$, $p = 0.0059$). The small enterprises registered the highest proportion of increased trends on youths employed. This observation is consistent with several similar studies done that have

concluded that small enterprises play a major role in job creation (Harvie, 2008; Mead, 1994; Muriithi, 2017; Savlovski & Robu, 2011).

Youth employment and measuring business growth

The findings suggest that, generally, MSMEs do not consider employment as an indicator of their business growth (Figure 11). About 86% of the MSMEs use income to measure business growth, while only about 1.3% use employment rate as an indicator of their business growth.

The results concerning perceptions regarding measuring business growth is a potential impact risk on creating jobs through the pursuance of MSMEs growth. MSMEs focus on income as a measure of growth, may undermine efforts relating to employment creation. Such are the cases that lead to jobless growth in the private sector; and several countries such as India have experienced such (Aggarwal, 2016; ILO, 2007). Employment creation among MSMEs must be planned and deliberately pursued as part of business growth. Thus, use of impact investing in promoting the development of MSMEs for job creation is likely to contribute to ensuring that job creation as a social gain is part of the main indicators business performance of the MSMEs alongside income as a financial gain (Chodos & Johnson, 2014; Johnson & Lee).

4.3.2. Prominent factors of MSMEs growth

4.3.2.1. The regression for Model 1

The study used an ordinal logistic regression model to examine the influence of the seven predictors, namely, access to raw materials, banking regulations, general business regulations and policies, taxes, access to technology, a sector of business and education of owner on MSMEs growth. The estimated model is statistically significant compared to the null model with no predictors (Figure 14). The model has a likelihood ratio chi-square of 62.23 at 19 degrees of freedom in 76 observations, with $p < 0.001$. This implies that not all the observed coefficients of the predictor variables in the model are equal to zero. The model controlled for sector and education hence considered secondary predictor variables within it.

Generally, the odds ratios are as expected except for taxes, access to technology and education (Figure 14). The model suggests that for taxes, a shift from obstructive to not sure, the odds of being in the higher level of enterprise growth decreases by about 0.98. Similarly, a shift from obstructive to supportive taxes has decreased odds of being in the higher level of business growth by a factor of 0.003, given that all the other variables are held constant. In terms of access to technology, the odds in the higher categories of business growth increase with a move from obstructive to not sure (neutral) access to technology. However, the odds of being in

higher level of business growth decrease with a shift from obstructive to supportive category of access to technology. For predictor variables like access to raw materials, general business regulation and policies and bank regulation, the odds of being in the higher categories of business growth increase with a move from obstructive to neutral or supportive levels.

4.3.2.2. Predictor variables' effects on the enterprise's growth

The study uses predictive margins to interpret the effects of access to raw materials, general business regulation, banking regulations, taxes, access to technology, and sector of business and education of owner or manager on the MSMEs growth. The discussion below is based on the findings presented in Table 10 and Annex I.

4.3.2.2. a) Access to raw materials' influence on enterprise growth

The results suggest that access to raw materials has a positive effect on enterprise growth. With respect to obstructive access to raw materials, MSMEs have 71% probability of being in the decreased enterprise growth outcome against a mere 3% probability of being in the increased outcome.

The probability of MSMEs being in decreased enterprise growth outcome reduces with each categorical shift in access to raw materials from obstructive to not sure, and not sure to supportive. The inverse holds for the predictive probabilities of MSMEs to be in the increase enterprise growth outcome as access to raw materials changes from obstructive to supportive. However, the indication that MSMEs will most likely be in decrease category than increase category for all categories of access to raw materials is unexpected.

Out of the nine predictive probabilities of access to raw materials, two are not significant. The predictive probability that MSMEs with supportive access to raw materials have 18% chance of being in increase enterprise growth outcome is marginally significant, $p < 0.1$. While the predictive probability of MSMEs with obstructive access to raw materials to have 2% chance of being in increase enterprise growth outcome is not significant, $p = 0.208$. This finding is similar to other study's finding that raw material scarcity deters the business growth of MSEs (MoTI, 2015; UNIDO, 2013).

4.3.2.2. b) Influence of general business regulation and policy on enterprise growth

Generally, the probability for an MSME to be in increase enterprise growth outcome category goes up with a change from obstructive to supportive business regulations and policy. Meanwhile, as general business regulations and policy move from obstructive to supportive in

the decrease enterprise growth outcome, the predictive probabilities reduce as expected. All the predictive probabilities of general business regulation and policy against enterprise growth are significant at $p < 0.05$.

In the presence of obstructive general business regulations and policy, MSMEs are most likely, with a 65% chance, to be in the decrease enterprise growth outcome category. While, in the presence of supportive general business regulations and policy, enterprises hold the likelihood of 47% to be in the decreased enterprise growth outcome against 19% that they can belong to the increase enterprise growth outcome category. This observed effect is similar to other study findings from developing countries such as Ethiopia, Malawi, Zimbabwe and Algeria (Bouazza et al., 2015; World Bank, 2012; Krasniqi, 2007; St-Jean et al., 2008).

4.3.2.2. c) Influence of banking regulations on enterprise growth

Generally, chances of an MSME to experience decrease enterprise growth outcome reduce with a shift from obstructive to supportive banking regulations. Meanwhile, as banking regulations move from obstructive to supportive on increase enterprise growth outcome, the predictive probabilities increase as expected. All the predictive probabilities of banking regulations against enterprise growth are significant at $p < 0.05$ except for the predictive probability of not sure - banking regulation under increase enterprise growth outcome, which is not significant.

In the presence of obstructive banking regulations, MSMEs have 65% probability of being in the decrease enterprise growth category against a 7% probability of being in the increase enterprise growth. With supportive banking regulations, MSMEs are least likely (25%) to be in the increase enterprise growth outcome category, in contrast to approximately 37% chance of being in decrease enterprise growth outcome. This finding is similar to other studies on SMEs performance in Africa (Abor & Quartey, 2010).

4.3.2.2. d) Influence of taxes on enterprise growth

The observed influence of taxes on enterprise growth is mixed and, in some cases, unexpected. Except three, all the nine predictive probabilities of taxes are significant at $p < 0.05$. The first of the non-significant ones is that supportive taxes give MSMEs about 0% chance to be in the increase enterprise growth outcome. The second one is that not sure taxes give MSMEs approximately 13% chance to be in the increase enterprise growth outcome. The third one is that supportive taxes give MSMEs a 5% chance of being in the constant enterprise growth outcome.

In the presence of obstructive taxes, MSMEs have 43% probability of being in decrease enterprise growth outcome category which is contrasted with 13% probability of being in the increase enterprise growth outcome category. This probability result is not surprising; it is consistent with study findings from other developing countries (Davidsson, 1989; St-Jean, Julien & Josée, 2008).

Generally, the results reveal that a shift from obstructive taxes to supportive taxes increases chances of an MSME to be in the decrease enterprise growth category and that it reduces the chances of an MSME to experience increase enterprise growth outcome. In the case of supportive taxes, the chance of MSMEs being in the decreased enterprise growth outcome category is highest at about 95%, with zero chance for an MSME to experience increase enterprise growth outcome. These observations are contrary to theoretical expectations and empirical findings of other from developing country studies about tax level effects on MSMEs (Bouazza et al., 2015; World Bank, 2012; St-Jean et al., 2008).

4.3.2.2. e) Access to technology' influence on enterprise growth

As is the case with taxes, the influence of access to technology on enterprise growth is mixed and unexpected. All the nine predictive probabilities of access to technology are significant at $p < 0.05$ except for three. The first one is that supportive access to technology gives MSMEs about 7% probability to be in the constant enterprise growth outcome category. The second one is that with supportive access to technology, MSMEs have 0% probability of being in the increase enterprise growth outcome category. Thirdly, there is marginal significance at $p < 0.1$ in that with obstructive access to technology MSMEs have 12% probability of being in the increase enterprise growth outcome category.

In the presence of obstructive access to technology, MSMEs have 43% probability of being in the decrease enterprise growth outcome category, a huge contrast to 12% probability of being in the increase enterprise growth outcome category. In the case of supportive access to technology, the chance of MSMEs being in the decreased enterprise growth outcome is highest at about 93%, with almost zero chance of being in increase outcome category. The former probability result is normal while the latter is unusual.

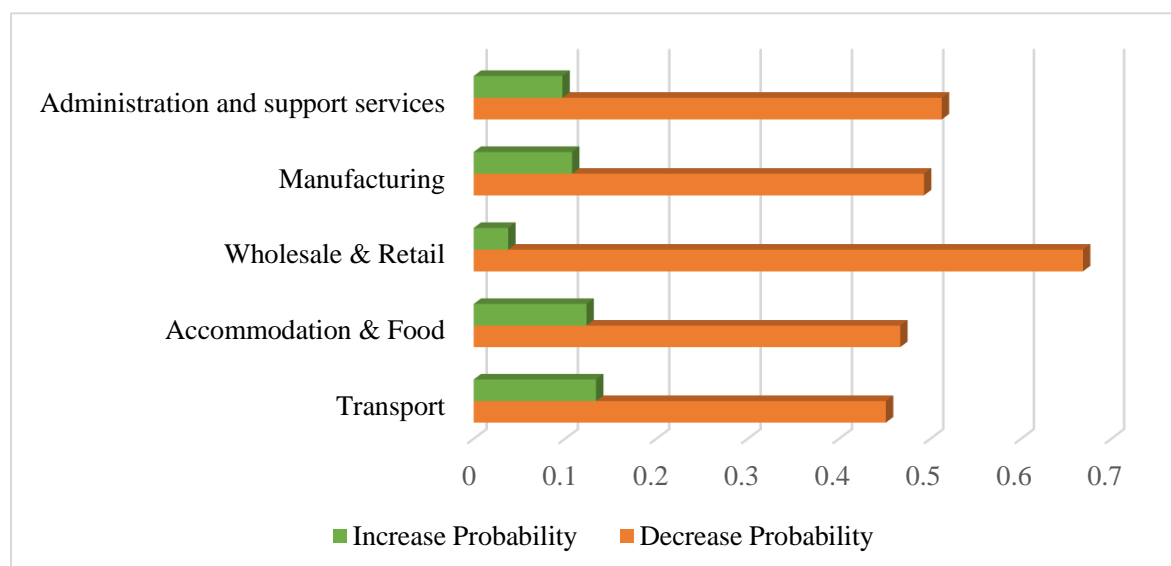
In general, a shift from obstructive to supportive access to technology almost doubles the probability of an MSME to experience decrease enterprise growth outcome, and it reduces the probability of an MSME to experience increase enterprise growth outcome, from 12% to almost

nil. The observed trend of shifts from obstructive to supportive access to technology is contrary to theoretical expectations and empirical findings of other studies. With greater access to technology, MSMEs are expected to save money and they tend to be more efficient (Abor & Quartey, 2010; Grimsholm & Poblete, 2010; MoTI, 2015; Sitharam & Hoque, 2016).

4.3.2.2. f) *Influence of the business sector on enterprise growth*

Generally, the findings show that an MSME in any of the five sectors is most likely to be in the decrease enterprise growth outcome category than in increase or constant outcome of enterprise growth category. The probabilities of the MSMEs in each of the sectors to belong to the increase enterprise growth outcome ranges from 4% to 13%, which is relatively small and only statistically significant for the transport sector. Figure 18 is a graphic comparison of sectors on enterprise growth outcome probabilities of increase and decrease.

Figure 18: Growth probability projections for sector categories in Eritrea



A comparison across the five sectors shows that MSMEs in the wholesale and retail sector has the highest probability (67%) of being in the decrease enterprise growth outcome category while transport has the least probability (45%) of being in the decrease enterprise growth outcome category.

All the predictive probabilities are significant at $p < 0.05$ except for predictive probability of wholesale and retail sector which is marginally significant, $p < 0.1$. Similarly, predictive probabilities of accommodation and food, manufacturing, and administration and support services on increase enterprise growth outcome are not significant, $p > 0.1$.

4.3.2.2. g) Influence of education of enterprise owner/manager on enterprise growth

Education of owner or manager was also included in the study as a proxy of managerial skills. The findings suggest that an enterprise owned or managed by a person with any of the six education qualifications is most likely to be in the decrease enterprise growth outcome except for junior level education. The trend is contrary to the expectation that those with higher education qualifications such as a diploma and a bachelor's degree would do better than those with junior level education (Cooper, Folta, Gimeno-Gascon & Woo, 1992; Lussiers & Pferfer, 2001).

In the decrease enterprise growth outcome, all the probabilities are significant, $p < 0.01$. An enterprise owned by junior level education holds the highest probability (24%) of being in the increase enterprise growth outcome, which is significant, $p < 0.05$. The rest of the predictive probabilities of the other five education levels are not significant, $p > 0.05$. This suggests that generally education, apart from junior education, is not statistically significant to influence the increase in enterprise growth. This finding too is contrary to other study findings, including the specific finding that junior education has no statistically significant effect on business growth (Brijlal et al., 2013; Mead & Liedholm, 1998; Okpara, 2011; Yeboah, 2015).

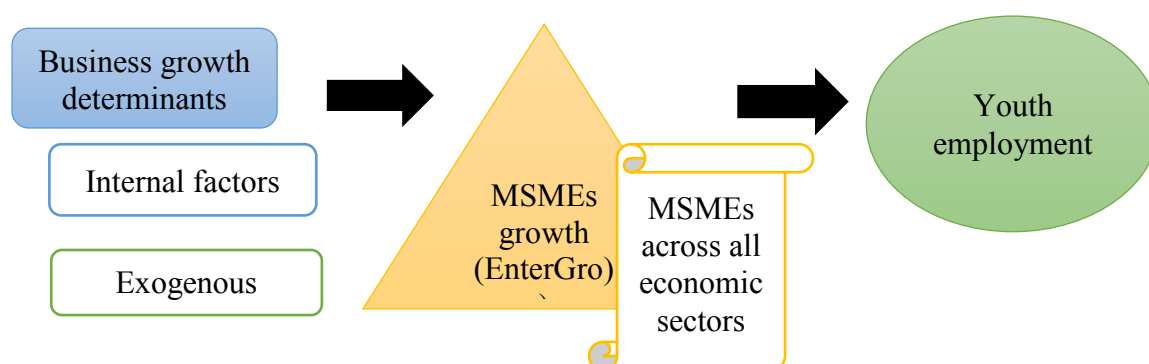
4.3.2.3. Prominent factors deterring growth of the MSMEs

Through the predictive probabilities of the ordinal logistic regression results, the study finds that the prominent factors that deter the growth of the enterprises are obstructive access to raw materials, obstructive general business regulation and policies, obstructive banking regulations (Figure 14; Table 10). This finding is similar to those of studies from other developing countries in Africa and Arab and Europe regions that place the three factors among the top obstacles of business growth among MSMEs (World Bank, 201; Okpara, 2011; Soini & Veseli, 2011).

4.3.3. Relationship between MSMEs growth and youth employment

The research also endeavoured to establish the influence of MSMEs growth on youth employment. In this study, enterprise growth was assumed as the intermediary mechanism for the creation of jobs among young people. Figure 19 gives the overall logic model of youth employment through MSMEs growth assumed in this study.

Figure 19: Overall logic model of youth employment through MSMEs growth



The chi square test result (Table 9) shows that there is no statistically significant relationship between youth employment and MSMEs growth, $X^2(2) = 3.94$, $p = 0.140$. Similarly, a Spearman correlation test shows a positive relationship between youth employment and MSMEs growth but is not statistically significant ($r_s = 0.1324$, $p = 0.2544$).

4.3.3.1. Regression model 2

A binary logistic regression model 2.1 was used to examine the possible influence of MSMEs growth on youth employment (Annex II). In reference to Annex II, the estimated binary logistic regression model as a whole is not statistically significant compared to the null model with no predictors, likelihood ratio $X^2(2) = 2.09$, $p = 0.148$. The odds ratios are as expected. The odds of youth being employed increase, by 7.2, with a shift from decreased enterprise growth to increased enterprise growth.

An alternative binary logistic regression model 2.2 was run to examine the influence of MSMEs growth on youth employment, with the sector as a controlled variable (Figure 15). The results of the regression (Figure 15) show that the regression model is marginally significant, $p = 0.0688$. The odds ratios of the enterprise growth variable are as theoretically expected. The odds of youth employed increase with a move from decreased enterprise growth to constant enterprise growth by 1.43. In contrast, the odds of youth employed for enterprises with an increase in growth is 5.35 times higher than that for enterprises with decreased growth category. However, the odds ratios are not statistically significant, $p > 0.1$.

4.3.3.2. The influence of enterprise growth on youth employment

Generally, chances of youth employment increase with increases in business growth (Table 11). When enterprise growth is in the decreased category, it is 40% likely to employ youth while when it is in the constant growth category, it is 47% likely to employ youths, and when it is in

the increased growth category, it is 75% likely to employ youths. The predictive probability trend is consistent with theoretical expectations on the relationship between enterprise growth and youth employment.

A comparison of the two binary logistic regression models suggests that MSMEs growth alone is not sufficient to predict youth employment. Furthermore, in the lens of impact investing on youth employment creation through MSMEs, the variation in significant levels of the models suggest that a framework of development financing that focuses only on MSMEs growth without concrete linkages to other macro-business performance related areas is not suitable.

Therefore, based on the case of Eritrea, this study finds no statistically significant relationship between youth employment and MSMEs growth. The study also contradicts the findings of other similar assessments that suggest that MSMEs are a great contribution to job creation (ILO, 2015; Mead, 1994; Tadesse, 2010). Both findings are contrary to theoretical expectations and other empirical studies probably due to the under-developed state of the private sector in Eritrea.

4.3.4. Measures to grow MSMEs

The research also sought to establish measures to be taken to facilitate the growth of the MSMEs, as part of contributing to job creation for youths. In reflection of the regression results, the identified obstacles and the perceived growth measures by the MSMEs, the study deduces that there are two main measures to improve the growth of MSMEs. The measures are an improvement of the macro-economic condition, and MSMEs policy and significant gradual liberalization of the economy. These measures are similar to other research study findings on the performance of MSMEs and role of job creation in developing economies (World Bank, 2012; Kaleta, 2016; Nasr & Rostom, 2013; Tambunan, 2008).

4.3.4.1. Improve the macro-economic conditions

a) Open-up and improve regulations on import and export

MSMEs suggest that improving access to raw materials and import and export will improve their business growth (Table 13). This is consistent with the observation from the ordinal logistic regression results that supportive access to raw materials raises the probability of MSMEs to be in increase growth outcome to 18%, from 3% under obstructive access to raw materials. A Spearman correlation test on the 76 observations, shows that there is a modest positive relationship between import and export (RegIE) and access to raw materials ($r_s =$

0.2166, $p = .06$). Thus, this study finds that to open-up and improve the regulations and practices on import and export would likely help to improve MSMEs growth.

b) Banking regulations be improved to less or non-stringent

Supportive banking regulations give MSMEs the highest probability of being in the increase enterprise growth, 25%; against the lowest probability of 8% attached to obstructive banking regulations (Table 10). Similarly, improved banking regulations ranks third among enterprises recommendations on actions to improve business growth. The MSMEs perceive stringent banking regulations as one of the major deterrents of their business growth (Figure 17).

Eritrea introduced new banking regulations in November of 2015. The regulations retained the fixed exchange rate at ERN15/USD; limited monthly cash withdraws to ERN5, 000/ person; and encouraged people to buy or sell things on the market at any amount using cheques (Kaleta, 2016; MIE, 2016). A Spearman correlation test, based on 76 observations, shows a non-statistically significant positive-relationship between banking regulations and demand for products and services ($r_s = 0.1833$, $p=0.1131$). Therefore, the study finds that there is a positive likelihood that eliminating stringent banking regulations would increase demand for products and services, thereby contributing to positive business growth.

c) Stimulate increased consumer spending power in the economy

Shortage of demand ranks first among the perceived major deterrents of business growth in Eritrea (Figure 17). In the survey, about 65% of the enterprises rated demand for products and services as obstructive. Likely, pursuance of strategic steps to increase the disposable income of the people would stimulate spending in the economy (Table 12; Table 13). As Muriithi (2017) suggests, due consideration needs to be given to aggregate demand because it does affect business performance.

The limited income of consumers in the economy is attributed to relatively low salaries, unemployment, and exchange rate (Figure 17; Table 12). A Spearman correlation test between the demand for products/services and exchange rate gave a statistically significant positive relationship ($r_s=0.2781$, $p=0.0150$). Most Eritreans are said to depend on remittances. There is an indication that since the monetary policy (banking regulations) of 2015, consumers' options on exchanging their USD have been mainstreamed to official exchange rates (Kaleta, 2016; MIE, 2016). Since then, the unofficial exchange rate has

declined, from about 60 - 80 in November 2015 to around 15 as of December 2017. In this same period, 2015 – 2017, the government raised salaries for civil servants. In addition, there is an indication that prices of goods have gone down but not much (MIE, 2016). Therefore, holding other factors constant in the economy, it is compelling to argue that the exchange rate has had a higher influence on the reduced spending power of the consumers. Consequently, this study suggests that monetary and fiscal policy strategies that stimulate consumer spending power in the economy will contribute to growth of MSMEs.

d) Reduce tax and bureaucracy in the tax system

Improving the tax rate ranks as the second major recommendation for improving business performance (Table 13). Unfair tax policies (especially the tax rate calculations), licensing procedures, and bureaucracy emerge as key issues under tax perceived as a major deterrent factor to business growth (Figure 16; Figure 17). For instance, about 58% of the MSMEs rated bureaucracy as an obstruction to their business growth in the 12 months pre-survey period. Thus, this study finds that reducing tax and bureaucracy in the tax system will contribute to better growth of the MSMEs.

e) Eliminate unfair competition: keep-out unlicensed businesses

About 51% of the enterprises, perceived competition as obstructive to their business growth (Figure 8). In addition, competition from illegal businesses is considered unfair and features as one of the major detriments of business growth (Figure 17). The main challenge concern regulating the private sector to ensure that only licenced businesses operate (Figure 16). Most of the MSMEs, especially in the wholesale and retail sector, face competition from unlicensed businesses. Hence, this study finds that improving practices in the regulation of businesses will not only likely help address unfair competition issues but may also contribute to better business performance.

4.3.4.2. Establish MSMEs policy and gradual liberalisation of the private economy

MSMEs in all the five sectors have relatively higher probabilities of belonging to decrease enterprise growth outcome category than to either of the other two enterprise growth outcome categories. There is, generally, an indication of a poor performing private sector as can be seen from the fact that 58% of the MSMEs are decreasing in contrast to 8% that are increasing (Figure 9). Issues such as closed access to import and export, stringent taxes, state-controlled pricing, strict regulations on active sectors and stringent banking regulations show that the private economy does not exhibit traits of the market economy (Figure 16; Figure 17).

Generally, the MSMEs think that the climate is not good enough for businesses or private investments to thrive. Therefore, this study finds that MSMEs growth is likely to be robust by introducing pro-business sector growth regulations and policy. At the centre of such regulations and policy should be the establishment of a credible MSMEs policy alongside a gradual but effective liberalization of the domestic economy through credible reforms that could ensure a business and investment friendly environment for all private sector players. Establishment of MSMEs policy in countries such as Thailand and India has contributed to better growth and job creation ILO, 2015; Tambunan, 2008).

The liberalization would be consistent with Eritrea Government's plan and would be an important part of efforts towards establishing a market economy in Eritrea (de Melo, Denizer & Gelb, 1996; Ma, 2007; Sundakov, 2000). Lessons from Ukraine suggest that a sudden international economic liberation, using a case of international trade, can lead to growth but with no job creation as opposed to losses (Christev, Kupets & Lehmann, 2005). World Bank (2012) and Ma (2007) suggest that gradual liberalization may help improve an investment climate and enable inclusive economic sector activities, bringing in more players for jobs and poverty reduction. Thus, gradual liberalization at the domestic level is a critical prospect in an economic restructuring that would enable businesses to grow and create required jobs.

4.4. Conclusion

This chapter has presented the findings of the study based on the statistical and qualitative analysis of primary and secondary data. The analysis of the findings has been done in relation to the hypotheses of the study, and a discussion about their implications to the study's three research questions. The outputs of the findings were obtained using STATA. Preliminary tests on the data were conducted using chi-square and correlation analysis. The analysis used chi-square tests of variables, logistic regression, thematic and frequency distributions to answer the research questions. The discussion in this chapter made reference to the reviewed literature on theory and practice. The study finds access to raw materials, general business regulation, and banking regulations to be prominent factors that deter the growth of MSMEs. Meanwhile, education of owner/manager and sector of a business are found not to be important for enterprise growth. In addition, it finds that there is no significant relationship between MSMEs growth and youth employment. Thirdly, the study suggests that to improve MSMEs growth, measures should focus on improving macro-economic policies and regulations and improving liberalization of the economy.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

The study investigated the connection between the growth of MSMEs and youth employment using a case of Eritrea. The MSMEs are deemed strategic and to have potential to contribute to creation of jobs and poverty reduction as part of inclusive economic growth and development. Hence, this study assumed that MSMEs are intermediary in job creation, but their performance is dependent on a set of determinants (Figure 19). This chapter presents the conclusions and recommendations of the study while providing an overview of the entire study.

5.2. Research questions and overview of the study

There is a notion that growth of MSMEs, as part of the private sector, plays an important role in contributing towards economic growth and development (ILO, 2015; Okpara, 2011). However, the reviewed literature in this study showed that the role of MSMEs in job creation is inconclusive as it is more contextual (Okpara, 2011; Rodriguez, Molina, Gonzalez-Perez & Hernandez, 2003). Similarly, the factors that affect the growth of MSMEs are contextual in many ways such as period of reference, political and economic development levels. Between 2010 and 2016, Eritrea's economy faced a problem of shrinking of the MSMEs sector that affected private sector-led employment creation and absorption capacity (AfDB, 2014; NUEYS, 2016). The situation cited, is said to have contributed to its youth unemployment. Therefore, this research intended to establish prominent factors that affect MSMEs growth, and the connection between MSMEs growth and youth employment. In turn, it also intended to suggest a model for growth of the MSMEs for youth employment.

To operationalize the research, the following questions were set (presented in Chapter 1):

Primary research question:

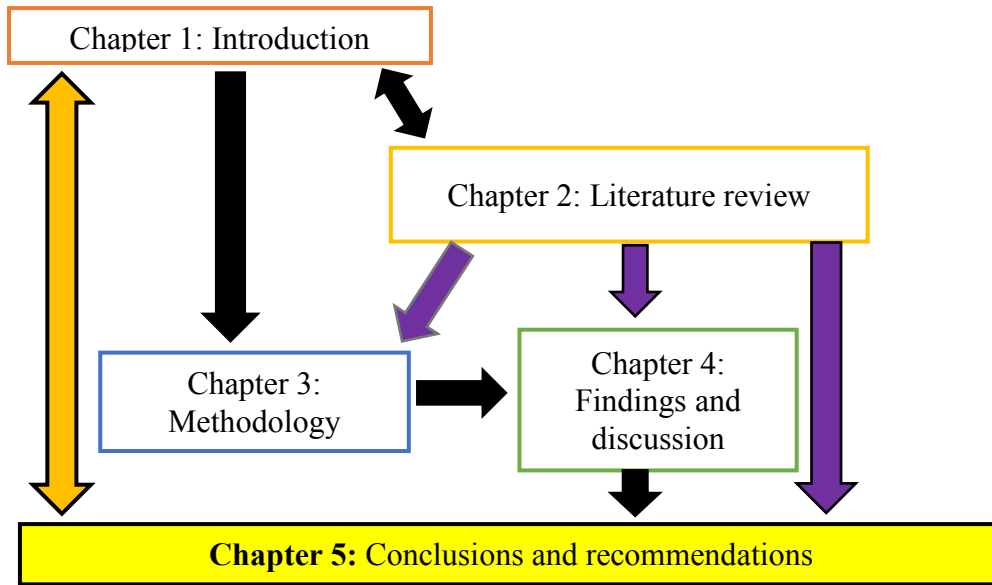
- What should be done to enhance the growth of MSMEs and related impact on youth employment in Eritrea?

Secondary research questions:

- 1) What are the prominent factors that deter the growth of MSMEs in Eritrea?
- 2) What is the relationship between MSMEs growth and youth employment?
- 3) What measures should be taken to facilitate the growth of MSMEs?

In steps to address the research questions, Figure 20 presents an overall flow of the research study from the study's introduction to the conclusions and recommendation.

Figure 20: Flow diagram of the entire research study



Chapter 1 presented an introduction to the study. It covered the background, context, research problem, research questions, justification and theoretical framework for the study.

Chapter 2 provided a comprehensive literature review. It provided the conceptual and analytical frameworks for the study. It specified definitions for enterprise growth, categorization of MSMEs, youth and youth employment. The reviewed literature also espoused the role of MSMEs development, growth factors of MSMEs and measures of growing MSMEs for youth employment.

Chapter 3 presented the methodology of the research. The research used a case study approach and was conducted in Asmara city in the Maekel region. It used cross-sectional primary data. The research used econometric methodology to address the research questions. It also covered issues of validity, reliability and ethics, and limitations.

Chapter 4 presented the results and findings based on the primary data. The results were statistically analysed using STATA. The analysis used chi-square tests of variables, logistic regression, thematic and frequency distributions to answer the research questions. The findings and discussion presented are in relation to the established research questions, hypotheses and the reviewed literature.

Chapter 5 presents the conclusions and recommendations of the study based on the results and findings presented in Chapter 4.

5.3. Summary of findings

The presented main findings herein are with respect to the established aims, objectives and the research questions in this research study. They are based on the presented findings and discussions in Chapter 4. The study intended to find the prominent factors that deter MSMEs growth, the link between MSMEs growth and youth employment and finally evidence based suggestion on measure to enhance the growth of MSMEs for youth employment.

5.3.1. Three prominent factors that deter MSMEs growth

The first specific aim of the study was to determine the factors that deter the growth of MSMEs and extract the prominent factors for the growth of the MSMEs using a case of Eritrea. Consequently, the study hypothesized as follows:

H₁: MSMEs growth is deterred by seven variables: weak sector of a business, low education of owner, obstructive general business regulation, stringent taxes, obstructive banking regulations, obstructive access to technology and obstructive access to raw materials

H₂: In H₁ there exist factors with a significant effect on the growth of the MSMEs.

The study concludes that weak sector of a business, low education of owner, obstructive general business regulation, stringent taxes, obstructive banking regulations, obstructive access to technology and obstructive access to raw materials, as a set, are statistically significant to have an impact on MSMEs growth (H₁). The influence of the seven factors (in H₁) on MSMEs growth was tested using ordinal logistic regression and the model was found to be statistically significant. Hence, H₁ is accepted. The H₁ is a revised hypothesis due to the reduced number of sample size from the planned 120 enterprises to 76. Consequently, the reduction of the tested predictors from eleven to seven, to ensure accuracy of the results. The predictors not considered are corruption, weak contract enforcement, weak access to finance and obstructive exchange rate, as they are found to have no significant relationship with MSMEs growth or equally explained by one of the seven predictors (Table 8; Figure 12).

The study concludes that that the prominent factors that deter MSMEs growth are obstructive access to raw materials, obstructive general business regulation and policies, and obstructive banking regulations. In addition, in terms of enterprises' perceptions, the three factors were among the top five, the other two factors being tax rate, and import and exports. This is not surprising as the study findings also suggest that there is a close relationship between access to

raw materials and regulations on import and exports. The study finds that exogenous factors of business growth have more significant influence in deterring MSMEs growth. Therefore, the study accepts H₂. This is similar to the findings of other studies done in developing countries such as Thailand and countries in the MENA region on SMEs growth (EBRD et al., 2016; Grimsholm & Poblete, 2010).

5.3.2. The relationship between youth employment and MSMEs growth

Secondly, the study sought to explore the relationship between the growth of MSMEs and youth employment. It hypothesised, H₃, that youth employment is positively related to MSMEs growth and that youth employment is influenced by the growth of the MSMEs. This was examined using binary logistic regression analysis and Spearman correlation tests.

This study concludes that there is a positive relationship between youth employment and MSMEs growth, but it is weak and statistically non-significant. There is also no statistically sufficient evidence that youth employment is influenced by the growth of the MSMEs. Therefore, H₃ is rejected. Generally, this finding is inconsistent with some other studies' findings (Abor & Quartey, 2010; Mead & Liedholm, 1998; Muriithi, 2017). The inconsistency observed can be partially explained by Eritrea's labour policy (prolonged national youth service) and the under-developed status of the private sector in which micro and small enterprises highly dominate the MSMEs sector.

With respect to impact investing framework on youth employment through the MSMEs, the study finds that creation of youth employment is not guaranteed. This is due to the MSMEs inclination to income as a measure of business performance without evidence of job creation as a performance indicator. The reviewed literature shows that in other contexts measuring changes in number of employees is another main method for assessing the growth of MSMEs. Likewise, based on the business registration form of Eritrea's MoTI, enterprises are expected to contribute to job creation. Hence, that no enterprise adopts this measurement approach is an impact risk on expecting MSMEs to assume the social responsibility of contributing to job creation in the economy (Davidsson, 1991; Delmar 1997; Wiklund, 1998).

5.3.3. Integral measures to grow MSMEs

The third specific aim of the study sought to recommend appropriate measures to be taken to grow the MSMEs. The study hypothesised, H₄, that MSMEs growth is a resultant of appropriate measures on policy, institutional arrangements, enterprise development and financial

deepening. Based on the regression analysis, frequency distributions and pattern building, the study recommends two appropriate measures to grow the MSMEs, hereunder described. Therefore, the study marginally accepts the hypothesis, H₄, since enterprise development and financial deepening are deemed to have no sufficient impact on the growth of the MSMEs.

The first measure is to improve the macro-economic conditions for pro-business sector growth. This includes opening-up and improving regulations and practices on import and export, eliminating stringent banking regulations, and stimulation of increased consumer spending power in the economy, elimination of unfair competition, and reduction of tax rate and bureaucracy in the tax system.

The second measure is to establish a MSMEs development policy and gradual liberalization of the private economy. Generally, the MSMEs perceive that the climate is stringent and not good for businesses or private investments to thrive. Hence, effective liberalization of the domestic economy through credible reforms would support improve the situation. Establishment of a comprehensive policy to guide the development and financing of MSMEs in line with macro-economic goals of government will help in mainstreaming initiatives for better impact in job creation.

5.3.4. Growing MSMEs with impact on youth employment

Overall, the research study sought to determine what should be done to enhance the growth of MSMEs and related impact on youth employment based on the case of Eritrea. In light of the other three main research findings, the study concludes that for growth of MSMEs to have high chances of having an impact on youth employment, both, income and youth employment should be pursued concurrently as business performance indicators. The absence of either indicator raises a risk of losing out on its attainment in pursuance of the indicator which is explicitly set to measure enterprise growth. In the reviewed literature on enterprises and social responsibility, there is a discourse that the social responsibility of a business is to make money in an ethical manner; such view is exhibited among the MSMEs in Eritrea their business growth performance is measured by income. Consequently, with traits of survival entrepreneurship among the MSMEs, it is likely that the MSMEs will only focus on income (profit) measurement unless regulated. Hence, a proposed model for MSMEs growth for youth employment is presented below:

$$MSMEs' Growth_{it} = B_0 + \beta_1 X1_i + \beta_2 X2_i + \beta_3 X3_i + \dots + \beta_z Xz_i + \epsilon_i$$

Where MSMEs growth has a base of impact investing approach (*II*) and is measured by income and jobs created for youths; B_0 is the model's constant; B_i , with $i = 1$ to Z (integer) as coefficients of determination of the independent variables under this study; and ϵ is Error

Investments for MSMEs development that do not address the identified factors that deter the MSMEs growth and the establishment of explicit linkages between enterprise growth and youth employment present a high impact risk. In consideration of impact and return on investments, businesses that are loan-financed in such unsupportive business climate face high credit risk.

5.3. Implications: policy and practice, and theory

Using the case of Eritrea, the study finds that exogenous factors have more significant influence than internal factors of an enterprise. It contributes to the projection on the importance of support to enabling business climate and application of impact investing in financing the growth of MSMEs for employment creation. Based on the findings and discussion, the study raises implications for policy and practice, and theory on enterprise growth.

5.3.1. Policy and practice on MSMEs growth and job creation

Given that exogenous factors are more significant in influencing MSMEs growth, this study suggests that if MSMEs are to create jobs then the business climate should be improved to enabling state for them to make profits (increase growth). The subsequent is a brief of key practice and policy implications on financing MSMEs growth for job creation.

Firstly, a policy on industrial and trade development should be established. The study finds that since enterprises operating in all sectors are likely to fail to grow, an observation like other similar previous studies in Eritrea, then there is a consistent practice considered a *de facto* policy which is not pro-business growth. Pro-business growth policy should give clear guidance, supportive regulations and reforms in areas of interest for MSMEs to operate in. In addition, the central government should consider speeding up structural and policy reforms that facilitate gradual liberalization of the domestic private economy. In the current state, financing MSMEs in any sector will likely not create jobs nor financial returns, thereby high exposure to impact and credit risks

Secondly, development partners and investors in the MSMEs sector that seek to support youth job creation, should include a performance indicator of youth employment creation to reduce impact risk of their investments. In general, the enterprises hold the perception that there is a

positive relationship between the growth of their enterprises and youth employment although their main indicator of growth is income. Youth employment appears at the least level of about 1% as a measure of enterprise growth. It is compelling to suggest that without businesses' deliberate pursuance of job creation, financing the MSMEs with an expectation to create jobs presents an investment risk on social returns. Impact investing helps to curb this risk.

5.3.2. Theory: determinants of firm/ business growth and job creation

The findings of the study support the theoretical framework that a firm/ business thrives if exogenous, operation and strategic factors are favourable (Penrose, 1959; Ansoff, 1965). Some of the inconsistencies of the study findings against other studies contribute to the academic discussion that the business determinants are more contextual and depend on a country's level of economic and political development. For instance, many studies on MSMEs growth in developed economies show that operation and strategic factors play a significant role in business growth, yet the case of Eritrea suggests that exogenous factors play a more significant role.

5.4. Recommendations for future research

The study provides opportunities for conducting future in-depth research on the specific variables that affect the growth of MSMEs, using the case of Eritrea or other countries. The following are recommendations for future research:

- a) Study on the impact of banking regulations and monetary policy on business growth
- b) An explanatory study on taxes, access to technology and education in driving private sector performance
- c) An exploratory study on liberalization strategies for the domestic private economy and probable effect on MSMEs growth
- d) Study on the political economy of private sector development
- e) Study on the impact of international political economy on investment climate
- f) Study on the MSMEs impact on economic growth
- g) Replicate similar study at regional and continental level
- h) Study on effective and efficient regulatory practices: bureaucracy in the era of technological advancement

5.5. Conclusion

This chapter has presented the conclusions and recommendations of the study. MSMEs are strategic and a potential in pursuance of inclusive economic growth and development. They can

contribute to the creation of jobs and poverty reduction. This study assumed that MSMEs are intermediary in job creation, but their performance is dependent on a set of determinants. The study investigated the connection between the growth of MSMEs and youth employment using a case of Eritrea. The chapter has presented the research questions and an overview of the study, the findings on prominent factors that deter MSMEs growth, the relationship between youth employment and MSMEs growth, and measures of MSMEs growth. It has also presented proposed impact investing model on MSMEs growth for youth employment, the implications of the study on theory and practice, and recommendations for future research.

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ANNEXURES

Annex I: Predictive margins outputs

Annex I contains three STATA outputs, for the three outcomes of Enterprise growth.

OUTPUT 1: STATA output for outcome 1 of enterprise growth - Decrease

```
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech  
i.AccRam, predict(outcome(2))
```

```
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech i.AccRam, predict(outcome(1))
```

```
Predictive margins                                Number of obs      =           76  
Model VCE      : OIM
```

```
Expression   : Pr(EnterGro==1), predict(outcome(1))
```

	Delta-method					[95% Conf. Interval]	
	Margin	Std. Err.	z	P> z			
Sector							
Transport	.4512477	.097033	4.65	0.000	.2610665	.6414289	
Accommodation&Food	.4670082	.1260047	3.71	0.000	.2200436	.7139729	
Wholesale&Retail	.6685824	.0502282	13.31	0.000	.5701369	.7670279	
Manufacturing	.4930515	.1358102	3.63	0.000	.2268684	.7592346	
Admin&SupportServ	.5124883	.1059154	4.84	0.000	.3048978	.7200787	
EduOoM							
Adult-edu	.8166005	.0995671	8.20	0.000	.6214526	1.011748	
Elementary	.5433187	.0802975	6.77	0.000	.3859386	.7006989	
Junior	.3378622	.0760075	4.45	0.000	.1888903	.4868341	
Secondary	.5715706	.0921236	6.20	0.000	.3910116	.7521296	
Diploma	.7618417	.1692894	4.50	0.000	.4300406	1.093643	
Bachelors	.672184	.1437559	4.68	0.000	.3904276	.9539405	
Taxes							
Obstructive	.4309334	.0581088	7.42	0.000	.3170423	.5448245	
Not sure	.4327947	.2093097	2.07	0.039	.0225552	.8430343	
Supportive	.9497781	.0430879	22.04	0.000	.8653275	1.034229	
GenBusRegPo							
Obstructive	.6477276	.0396393	16.34	0.000	.570036	.7254193	
Not sure	.2970891	.1137239	2.61	0.009	.0741944	.5199837	
Supportive	.4710682	.0523334	9.00	0.000	.3684965	.5736398	
BankReg							
Obstructive	.6112065	.0459864	13.29	0.000	.5210749	.7013382	
Not sure	.7481779	.0915741	8.17	0.000	.5686959	.9276599	
Supportive	.3661665	.068665	5.33	0.000	.2315856	.5007474	
AccTech							
Obstructive	.4307663	.1067337	4.04	0.000	.2215721	.6399605	
Not sure	.3918343	.0880189	4.45	0.000	.2193205	.5643481	
Supportive	.9280293	.0449161	20.66	0.000	.8399954	1.016063	
AccRam							
Obstructive	.7111312	.0711444	10.00	0.000	.5716908	.8505716	
Not sure	.5369072	.0569996	9.42	0.000	.42519	.6486243	
Supportive	.4257561	.0799392	5.33	0.000	.2690782	.5824341	

Annex I cont'd

OUTPUT 2: STATA output for outcome 2 of enterprise growth - Constant

```
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech  
i.AccRam, predict(outcome(2))
```

```
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech i.AccRam, predict(outcome(2))
```

```
Predictive margins                                Number of obs    =           76  
Model VCE      : OIM
```

```
Expression   : Pr(EnterGro==2), predict(outcome(2))
```

	Delta-method					[95% Conf. Interval]
	Margin	Std. Err.	z	P> z		
Sector						
Transport	.4147344	.0692526	5.99	0.000	.2790018	.5504669
Accommodation&Food	.4094963	.0670464	6.11	0.000	.2780877	.5409049
Wholesale&Retail	.2936291	.0459931	6.38	0.000	.2034843	.3837739
Manufacturing	.3992309	.0770159	5.18	0.000	.2482825	.5501793
Admin&SupportServ	.3904166	.0650555	6.00	0.000	.2629101	.5179231
EduOoM						
Adult-edu	.1767632	.0933634	1.89	0.058	-.0062256	.359752
Elementary	.3942225	.0653424	6.03	0.000	.2661537	.5222912
Junior	.4252451	.0710575	5.98	0.000	.285975	.5645152
Secondary	.377366	.0669113	5.64	0.000	.2462223	.5085097
Diploma	.2269145	.1531601	1.48	0.138	-.0732739	.5271028
Bachelors	.3038528	.1223284	2.48	0.013	.0640936	.5436121
Taxes						
Obstructive	.4358423	.0611864	7.12	0.000	.3159191	.5557655
Not sure	.4350271	.0989798	4.40	0.000	.2410302	.629024
Supportive	.0488594	.041879	1.17	0.243	-.0332219	.1309408
GenBusRegPo						
Obstructive	.2871559	.0418782	6.86	0.000	.2050761	.3692356
Not sure	.304866	.0906436	3.36	0.001	.1272079	.4825241
Supportive	.3421082	.0535707	6.39	0.000	.2371116	.4471049
BankReg						
Obstructive	.3075627	.0469105	6.56	0.000	.2156199	.3995055
Not sure	.2167299	.0723316	3.00	0.003	.0749626	.3584971
Supportive	.3829203	.074719	5.12	0.000	.2364737	.5293669
AccTech						
Obstructive	.4460347	.0674859	6.61	0.000	.3137648	.5783045
Not sure	.4640573	.0789037	5.88	0.000	.3094089	.6187057
Supportive	.0699309	.0434862	1.61	0.108	-.0153006	.1551623
AccRam						
Obstructive	.2617838	.0573902	4.56	0.000	.1493012	.3742665
Not sure	.3698912	.0532402	6.95	0.000	.2655423	.4742402
Supportive	.3956184	.0600834	6.58	0.000	.2778571	.5133797

Annex I cont'd

OUTPUT 3: STATA output for outcome 3 of Enterprise growth - Increase

```
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech
i.AccRam, predict(outcome(3))
. margins ib(3).Sector ib(2).EduOoM i.Taxes i.GenBusReg i.BankReg i.AccTech i.AccRam, predict(outcome(3))

Predictive margins                                Number of obs   =           76
Model VCE      : OIM

Expression    : Pr(EnterGro==3), predict(outcome(3))
```

	Delta-method					[95% Conf. Interval]
	Margin	Std. Err.	z	P> z		
Sector						
Transport	.1340179	.0581897	2.30	0.021	.0199681	.2480677
Accommodation&Food	.1234955	.0883351	1.40	0.162	-.0496382	.2966291
Wholesale&Retail	.0377885	.0198725	1.90	0.057	-.0011609	.0767379
Manufacturing	.1077176	.0798365	1.35	0.177	-.0487591	.2641943
Admin&SupportServ	.0970951	.0637513	1.52	0.128	-.0278551	.2220454
EduOoM						
Adult-edu	.0066364	.0082475	0.80	0.421	-.0095284	.0228011
Elementary	.0624588	.044403	1.41	0.160	-.0245694	.149487
Junior	.2368927	.0792772	2.99	0.003	.0815123	.3922731
Secondary	.0510634	.0462203	1.10	0.269	-.0395267	.1416535
Diploma	.0112439	.0184724	0.61	0.543	-.0249615	.0474492
Bachelors	.0239632	.0278287	0.86	0.389	-.0305802	.0785065
Taxes						
Obstructive	.1332242	.0456028	2.92	0.003	.0438444	.2226041
Not sure	.1321781	.1303697	1.01	0.311	-.1233419	.3876981
Supportive	.0013624	.0017156	0.79	0.427	-.0020001	.004725
GenBusRegPo						
Obstructive	.0651165	.0223407	2.91	0.004	.0213296	.1089034
Not sure	.3980449	.174248	2.28	0.022	.056525	.7395648
Supportive	.1868236	.0736754	2.54	0.011	.0424226	.3312247
BankReg						
Obstructive	.0812308	.0230503	3.52	0.000	.036053	.1264086
Not sure	.0350922	.0252134	1.39	0.164	-.0143251	.0845096
Supportive	.2509132	.1136822	2.21	0.027	.0281002	.4737262
AccTech						
Obstructive	.123199	.0747292	1.65	0.099	-.0232675	.2696655
Not sure	.1441084	.0486656	2.96	0.003	.0487256	.2394912
Supportive	.0020398	.0022731	0.90	0.370	-.0024153	.006495
AccRam						
Obstructive	.027085	.0214951	1.26	0.208	-.0150446	.0692146
Not sure	.0932016	.0341951	2.73	0.006	.0261804	.1602228
Supportive	.1786255	.1011594	1.77	0.077	-.0196434	.3768944

Annex II: Binary logistic regression output on youth employment

Below is a STATA output of a binary logistic regression Model 2.1 with odds ratio, indicating the probable influence of enterprise growth on youth employment:

```
. logit YouthEmploy i.EnterGro, or
```

```
Iteration 0:  log likelihood = -52.257352
Iteration 1:  log likelihood = -50.187283
Iteration 2:  log likelihood = -50.183419
Iteration 3:  log likelihood = -50.183418
```

```
Logistic regression               Number of obs   =           76
                                LR chi2(2)         =           4.15
                                Prob > chi2         =          0.1257
Log likelihood = -50.183418       Pseudo R2      =          0.0397
```

YouthEmploy	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
EnterGro						
Constant	1.059259	.5313142	0.11	0.909	.3963217	2.83111
Increased	7.222218	8.215623	1.74	0.082	.7769401	67.13572
_cons	.6923077	.2122768	-1.20	0.230	.3795788	1.262689

Note: _cons estimates baseline odds.

Annex III: Research Questionnaire



Aim of the research

This study intends to examine the growth factors of Micro, Small and Medium Enterprises (MSMEs) in Eritrea and suggest a growth model for the MSMEs. The growth and development of MSMEs, as part of the private sector, play a surmountable role in economic growth and development through the provision of jobs for many, especially the poor and the poorest. It seeks to contribute to financial risk management and impact investing in financing start-ups and growth of MSMEs for employment creation.

Consent

This research has been approved by the Ministry of Trade and Industry of Eritrea and the Commerce Faculty Ethics in Research Committee of the University of Cape Town. Your participation in this research is voluntary. You will not be requested to supply any identifiable information, ensuring anonymity of your responses. You can choose to withdraw from the research at any time.

The questionnaire will take approximately..... minutes to complete. Due to the nature of the study you will need to provide the researchers with some form of identifiable information. All responses will be confidential and used for the purposes of this academic research only. Neither your name nor the name of your business will be used in any document based on this survey.

Should you have any questions regarding the research please feel free to contact the researcher (Terence Malamulo, [REDACTED]).

The information obtained here will be held in the strictest confidentiality.

May I conduct the interview with you? 1) Yes 2) No Date of Interview: ____/____/2017

QUESTIONS

SECTION A: INFORMATION ABOUT THE BUSINESS

1. What is the standard number of employees for your enterprise (by establishment)?
a) Micro [≤ 2], b) Small [3 – 9], c) Medium [10 – 24]
2. In what year was this enterprise established?
3. What is the legal status of your firm?
a) Sole proprietorship, b) Partnership, c) Limited Company, d) Family owned
4. What is the current age of the owner of this enterprise? _____
5. What is the gender of the owner of this firm? a) Female b) Male
6. What is the highest level of education (completed) of the owner of this firm?
a) Preschool, b) Elementary, c) Junior, d) Secondary, d) Diploma, e) Bachelors, f) Masters,
g) Doctorate, h) None
7. In which of the following industries does your enterprise do its business?

a) Transport and storage	d) Manufacturing	g) Arts, entertainment and recreation
b) Accommodation and food services	e) Real estate	h) Professional, Education, Scientific and Technical activities
c) Wholesale & retail; repair of motor vehicles, cycles, personnel and household goods	f) Administration and support services, water supply, sewage and sanitation	i) Information and communication
		j) hairdressing

7.1. What is the core product or service of your enterprise?

8. In the past twelve months, what has been your sales (profits focus) performance?

a) increased, b) decreased, c) not changed, d) not sure

9. In the past twelve months, did your enterprise employ young people (15 – 40 years)?

a) Yes, b) No

If Yes, how has been the trend on the number of youth employees in your enterprise?

a) increased, b) decreased, c) not changed, d) not sure

10. What is the amount of total sales for the past twelve months? _____

11. How many employees does your enterprise have? _____

12. What was the source of your business start-up capital?

a) Family, b) Friends, c) Equity, d) Debt/ loan, e) Good will non-relations

13. Which of the following does describe your growth objectives over the past four years?

a) Become smaller, b) Stay same size c) Become bigger d) No plan

14. What do you use to measure growth of your business? _____

15. In your experience, what do you think is the relationship between the performance of your business and youth employment? a) positive, b) negative, c) none

SECTION B: OPERATIONAL MATTERS OF BUSINESS

Hint: All questions take a context of past twelve months

16. To what extent has the location of your business been of influence in your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

17. Is your enterprise a member of any chamber of commerce or business association?

a) Yes, b) No

If yes,

i) Which business association or chamber of commerce?

ii) To what extent has this membership been of influence in your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

18. To what extent is your business performance affected by availability of skilled labour?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

19. Do you know about business marketing strategy (BMS)? a) Yes, b) No

20. Do you have a business marketing strategy (BMS)? a) Yes, b) No

21. To what extent did having or not having a BMS influence your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

SECTION C: BUSINESS ENVIORNMENT

Hint: All questions take a context of past twelve months

22. To what extent has corruption in dealing with public officials affected your business performance?
a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

23. To what extent has business contract enforcement affected your business performance?
a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

24. Please state any national or local regulations or policies that affect your business performance:

25. To what extent do business regulations or policies of the country affect the performance of your business?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

26. In general, to what extent did the amount of time you spent on dealing with public officials, to access public services (related to your business), affect your business performance (bureaucracy)?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

27. Which of the following best describes the nature of competition that you face in your business industry? a) Fair, b) Unfair

28. To what extent has competition affected your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

29. In the past twelve months, did your business want to access any loan? a) Yes, b) No

If no, skip questions 30 and 31.

30. In the past twelve months, did your business receive any loan from financial institutions?

a) Yes, b) No *In either case, proceed to question 31*

31. To what extent did your access to the loan affect your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

32. To what extent did the demand for your products and services affect your business performance?

a) Obstructive, b) Somewhat obstructive, c) Somewhat supportive, d) Supportive, e) Not sure

For any selected answer, why did the demand happen like that?

33. To what extent did each of the following factors affect the performance of your business?

No	Factor	1	2	3	4	5
		Obstructive	Somewhat obstructive	Somewhat supportive	Supportive	None
1	Electricity					
2	Water					
3	Business space					

No	Factor	1	2	3	4	5
		Obstructive	Somewhat obstructive	Somewhat supportive	Supportive	None
4	Exchange rate					
5	Tax system					
6	Access to raw materials					
7	Banking regulations					
8	Demand for products/ services					
9	Access to international markets					
10	Regulations on import and export					
11	Bureaucracy					
12	Access to technology					

Please state any specific barriers (regulations, policies, practices or procedures) that affect general business sector:

34. In your opinion, what are the major constraints that have deterred the growth of your business?

1.
2.
3.
4.
5.

35. What five things do you think should be done to improve the performance (growth) of your business?
